

**DISSERTATION  
ON  
“A STUDY TO ASSESS THE EFFECTIVENESS OF JACOBSON  
PROGRESSIVE MUSCLE RELAXATION TECHNIQUE AMONG  
ANXIETY DISORDER CLIENTS ATTENDING OUTPATIENT  
DEPARTMENT, INSTITUTE OF MENTAL HEALTH, AT CHENNAI-10”.**

**M.Sc. (NURSING) DEGREE EXAMINATION  
BRANCH – V MENTAL HEALTH NURSING  
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MADRAS MEDICAL COLLEGE, CHENNAI -03.**



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**In partial fulfillment of the requirement for the degree of  
MASTER OF SCIENCE IN NURSING  
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**“A study to assess the effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department, Institute of Mental Health, at Chennai-10”**

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**APRIL 2016**

## **CERTIFICATE**

This is to certify that this dissertation titled “**A study to assess the effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department, Institute of Mental Health, at Chennai -10**” is a bonafide work done by Mrs. V.Benazir, College of nursing, Madras Medical College, Chennai- 600003 submitted to the **Tamil Nadu Dr. M.G.R. Medical University, Chennai** In partial fulfillment of the requirements for the award of degree of master of science in nursing, Branch V, Mental Health Nursing, under our guidance and supervision during the academic period from 2014 -2016.

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## **ABSTRACT**

Mentally healthy person are the need in the society, but a person living in the world without any psychological problems is not at all a possible one. Life is full of task in which getting anxious forever a small incidents and it worsens the body health physically and psychologically.

### **STATEMENT OF PROBLEM:**

A study to assess the effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department, Institute of Mental Health, at Chennai -10.

### **OBJECTIVES:**

1. To identify the socio demographic variables of the anxiety disorder clients.
2. To assess the pre test level of anxiety before Jacob muscle relaxation technique therapy intervention.
3. To evaluate the post test level of anxiety after Jacobson progressive muscle relaxation technique intervention.
4. To determine the effectiveness of the Jacobson progressive muscle relaxation technique intervention.
5. To find association between selected demographic variables with reduction of anxiety among the clients by Jacobson progressive muscle relaxation technique.
6. The population of the study mentally ill clients with anxiety attending outpatient department in selected Institute of Mental Health, at Chennai.

## **Study design**

The research design selected for this study is one group pretest and posttest design.

## **Sampling techniques**

The techniques were selected simple random technique based on the inclusive criteria.

## **Data collection procedure**

Jacobson muscle relaxation technique is a therapy that focus on tighten and relaxing specific muscles among anxiety disorder clients. practiced twice a day 45 minutes daily for one week. After the 4<sup>th</sup> week effectiveness was assessed for each individual of clients

**Data Analysis:** demographic variables and clinical variables were analysed with descriptive statistics (percentage mean standard deviation) and correlated the levels of anxiety with demographic variables by inferential statistics (paired't' and chi square)

**Study Result:** the pretest score is 37.63 and the post test score is 19,78, so the difference is 17.85. The difference between pretest and posttest is large and it is statistically significant. Differences between pretest and post test was analysed using paired t-test.

**Discussion:** Anxiety is the prominent symptom of all mentally ill clients. Jacobson progressive muscle relaxation technique helps to reduce the symptoms. Fear, palpitation, insomnia, anxious mood, autonomic symptoms.  $P=0.001$  statistically significant.

**Conclusion:** This study reveals that there was a significant reduction in anxiety of mentally ill clients attending outpatient department in institute of mental health.

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## **LIST OF ABBREVIATIONS**

<b>S.NO</b>	<b>ABBREVIATION</b>	<b>EXPANSION</b>
1.	JPMR	Jacobson's Progressive Muscle relaxation
2.	$\chi^2$	Chi square test
3.	SD	Standard deviation
4.	CI	Confidence interval

# CHAPTER - I

## INTRODUCTION

*“Relaxation is the direct negative of nervous excitement.  
It is the absence of nerve-muscle impulse”*

*- Dr. Edmund Jacobson, MD*

Mental health is a continuum. Thus, an individual's mental health may have many different possible values. A mentally healthy person is having a positive attribute, such that a person can reach enhanced levels of mental health, even if they do not have any diagnosable mental illness. The definition of mental health highlights that emotional well-being, the capacity to live a full and creative life and the flexibility to deal with life's inevitable challenges.

Mental Health is "A state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society, and meet the ordinary demands of everyday life."  
**Merriam, W., (1989)**

Anxiety is a prominent symptom, early in the course of schizophrenia, and is viewed both as co-morbidity and a clinical expression of schizophrenia. Anxiety can be a stress factor that worsens existing prodromes or symptoms, leading to a vicious circle of growing stress and increased symptoms.

Overall, the consequences alone or in combination of these components of anxiety generate a reduced efficiency of behaviour. The anxious individual, in addition to avoiding or escaping from situations, also shows inhibition in many other activities such as establishing contact and performing professional activities outside his/her routine( **Mary C. Townsend 2013**).

The physiological and cognitive aspect can create a vicious circle with negative thoughts leading to sympathetic changes, which are themselves interpreted in a negative way. The result can be a spiraling of anxiety.

Moreover, anxiety disorders constitute only the tail of the curve representing the general anxiety distress that affects the population. According to **Zigmond and Snaith (2010)**, psychiatric disorder cannot be considered either present or absent since the degrees is continuously distributed in the population. In fact, complaints of anxiety are common among healthy individuals and have been associated with numerous negative health consequences, absenteeism and decreased work productivity. Studies have persistently shown that anxiety disorders produce morbidity, utilization of health care services, sometimes for long time, functional impairment and personal distress, leading to a burden of both private and public health care costs.

A broad understanding of the etiology of anxiety problems includes a multiplicity of factors, such as biological, psychological, and social determinants, which are mediated by a range of risk and protective factors. The old debate over the primacy of these factors, overall biological or psychological, is gradually being replaced by a pragmatic model considering all the relative contributions **Sheila Vide bech (2011)**.

Clinical trials have shown that anxiolytic drugs alone have limited long-term efficacy. Moreover, they often have adverse side effects including dependency, drowsiness, impaired cognition and memory and sexual dysfunction. Consequently, clinical community has begun to consider alternative old and new approaches targeting anxiety problems and to examine the merits of combined and tailored somatic and psychological treatments.

Progressive muscle relaxation techniques can be used as a natural muscle relaxer and is especially helpful since it is effective in achieving the deep conscious state of calming the mind.

When you are mentally stressed, you unconsciously tense your muscles. Tension held in your muscles adds physical discomfort or pain. It will commonly show up as a headache, backache, stomach ache, or concentrate in your face, neck and shoulders - making the mental stress even worse!

Progressive muscle relaxation techniques break this recurring stressed-mind/tense-muscle cycle, the fight or flight stress response. **Dr. Jacobson (1998)** understood that you needed to relieve muscular tension in order to reach a state of overall deep relaxation.

Deep muscle relaxation releases the physical tensions that manifest from all the hindering thoughts in your mind. It's one of the simplest, yet direct ways to quiet the internal, mental chatter – since with physical relaxation comes mental calmness **Anspaugh DJ, et al.(2011)**

.Huge progress has been made (and still goes on) in the non-pharmacological treatment of anxiety disorders. In this direction, relaxation techniques represent one of the most used approaches in anxiety management worldwide, both as a stand-alone treatment or included in a more complex therapy.

Keeping this in mind, nurses must give thrust to anxiety among mentally ill patients. There are a lot of interventions found to be effective in reducing anxiety. Most of these interventions can be administered by the nurses. Progressive muscle relaxation is one among them.

Jacobson's progressive muscle relaxation **Jacobson, P.B., & Heather, S.J. (2008)** is especially helpful for people whose anxiety is strongly associated



with muscle tension. They may experience chronic tightness on shoulders and neck, which can be effectively relieved by practicing progressive muscle relaxation. Progressive relaxation involves alternately tensing and relaxing the muscles. The basic therapeutic claim of muscle relaxation therapy is that tensed, stressed and anxious people can find relief from their distress and its physiological accompaniments by learning to reduce muscle tension. The rationale assumes that patients who can be treated successfully with progressive muscle relaxation will initially have either more tonic muscle tension or exhibit increased muscle tension in response to stress than a non distressed control group, assumptions with some support in generalized anxiety disorder. Moreover a reduction in muscle tension should cause the multiple aspects of the activation response, as well as expression of emotion in non physiological systems to decrease.

### **1.1 Need For Study:**

In modern world, life runs on a fast lane that everyone in the world is forced into stressful situation. Its employees who are more vulnerable to this situation stress are known to be the back bone of all psychiatric disorders.

Anxiety disorders are the most common mental health problem in the **United States, 2013** affecting 40 million adults (about 18% of the population) and costing more than \$42billion a year. Anxiety is considered a negative mood results from failure to predict, control, and obtained desired goals and is associated with dysfunctional cognition, behavior, and physiologic over activity. Anxiety further impairs health by motivating increased use of tobacco and alcohol and predisposes the individual to chronic diseases such as coronary heart disease.

The relaxation itself is considered to be beneficial for the tense, anxious persons. In this sense they have general applicability to many psychiatric and medical patients. A non drug method of inducing relaxation by instruction may be preferred over drug method. These therapies are suitable for most hospitalized

patients. They can be easily learned and taught by the nursing staff. Generally stress and anxiety is strongly associated with muscle tension.

The prevalence of anxiety disorders **John. Jacob et al (2013)** both in their severe and mild forms, is certainly high also in medical and surgical departments. Emotional distress presented by in- and out-patients may be a result of the stress caused by physical illness and, more subtle, somatic symptoms presented may be a manifestation of anxiety states, with no basis in organic pathology.

In recent years, it has been increasingly acknowledged that anxiety disorders are highly prevalent in the general adult population. Recent worldwide estimates **ADAA. The Anxiety and Depression Association of America (2013)** for the 1-year and lifetime prevalence of any anxiety disorders are 10.6% and 16.6%, respectively, with a ratio indicating that a large number of people experience anxiety disorders on a continuing or recurring basis. Prevalence is approximately twice among women, with overall age-specific rates remaining relatively stable or increasing across the lifespan.

The investigator herself had experienced the relaxing effect of progressive muscle relaxation during her final year graduate classes. Even though the session was only for 10 minutes, the investigator **Hofmann SG, Sawyer AT, Witt AA, (2010)** felt very relaxed and a sense of happiness and peace in mind for the whole day, while training or treating the mentally ill clients. So the investigator wants to assess the effectiveness of progressive muscle relaxation on anxiety among patients with such debilitating and anxiety disorder clients attending outpatient department at selected hospital at Chennai.

This study **Conrad, A., & Roth, W. (2006)** is proposed to assess the effectiveness of progressive muscle relaxation on anxiety disorder clients attending outpatient department at selected hospital at Chennai, and if so it can be incorporated as a regular nursing intervention in the care of mentally ill clients. Since mental illness is a chronic disease and progressive muscle relaxation is

found to be effective in other chronic diseases, also progressive muscle relaxation can be tried on anxiety disorder clients attending outpatient department at selected hospital at Chennai.

## **1.2 Statement of Problem:**

**“A study to assess the effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department, Institute of Mental Health, Chennai-10”.**

## **1.3 Objectives of the study:**

1. To identify the socio demographic variables of the anxiety disorder clients.
2. To assess the pre test level of anxiety before Jacob muscle relaxation technique intervention.
3. To evaluate the post test level of anxiety after Jacobson progressive muscle relaxation technique intervention.
4. To determine the effectiveness of the Jacobson progressive muscle relaxation technique intervention.
5. To associate the effectiveness with selected demographic variables.

## **1.4 Operational Definition:**

- **Assess**

It refers to the determination of the level of anxiety among mentally ill clients by Hamilton anxiety rating scale.

- **Effectiveness:**

It refers to the extent in which Jacobson Progressive muscle relaxation has achieved the desired effect in terms of reduction of anxiety.

- **Jacobson progressive muscle relaxation technique:**

This procedure is a type of therapy that focuses on tightening and relaxing specific muscle groups in sequence.

- **Anxiety disorder:**

It means the level of feeling of nervousness and worried uncertainty that typically appears among mentally ill clients attending outpatient department which is measured by using Hamilton Anxiety Rating Scale.

## **1.5. Hypothesis**

**H<sub>1</sub>:** There will be statistically significant difference between the pre and post-test level of anxiety before and after administering Jacobson progressive muscle relaxation technique.

**H<sub>2</sub>:** There will be a significant association between the selected demographic variables and post test level of anxiety after Jacobson progressive muscle relaxation technique.

## **1.6. Assumptions:**

The researcher assumes that

- ❖ The clients will be reduced anxiety by practicing Jacobson progressive muscle relaxation technique.
- ❖ The clients will have reduced level of anxiety.

## **1.7 Delimitations:**

1. This study is limited to all psychiatric illness with age group of 20 to 50 years.
2. The study period is more than four weeks.

## **CHAPTER -II**

### **REVIEW OF LITERATURE**

#### **2.1 Review of related studies**

**The whole review was organized under the following headings,**

1. Literature related to Jacobson progressive muscle relaxation technique.
2. Literature related to effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients.
3. Literature related to effectiveness of Jacobson progressive muscle relaxation technique among other disorder clients.

**Literature related to effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients.**

Sigmund Freud introduced the concept of anxiety in the early 1900s. He referred to it as a danger signal that a person exhibits in response to the perception of physical pain or danger. He recognized anxiety as a central component of mental diseases<sup>26</sup>. Relaxation therapy is useful in ameliorating many symptoms including anxiety, tension headache, sleep disturbance etc<sup>27</sup>. The relaxation response has been identified in many forms throughout history; mysticism, Zen, yoga, t'ai chi, power of prayer and Buddhism are some of them. Today we are more familiar with the terms transcendental meditation( TM), progressive relaxation, autogenic training and relaxation hypnosis. These techniques help to achieve the relaxation response.

**Antoni, M. H., Ironson, & Schneiderman, N. (2014)** as a therapeutic tool relaxation therapy effectively decreases tension and anxiety. The basic principle is that muscle tension is related to anxiety. If tense muscles can be made to relax, anxiety will be reduced<sup>29</sup>. Teaching strategies need to focus on progressive relaxation/deep breathing techniques which enable the client to control some

aspects of anxiety attacks by aborting or reducing emotional and physiological responses to them.

**Alexander, Edward (2014)** a study conducted on the effect of progressive muscle relaxation on anxiety, among chronically ill patients in a selected hospital at Mangalore. The objectives of the study were to assess the level of anxiety among chronically ill patients, find the effect of progressive muscle relaxation technique on anxiety among chronically ill patients, and to find the association between the level of anxiety and selected demographic variables.

**Bauer, M. S., McBride, L., Williford, W. O., Glick, H., Kinoshian, B., Altshuler, L., et al.(2014).**An evaluative approach with one group pre-test and post-test design was adopted. 73 chronically ill patients with diabetes mellitus, hypertension, and low back pain were purposively selected for administering Zung Self-Rating Anxiety Scale for identifying the level of anxiety. Out of the 52 patients scored above 44, 35 subjects were selected. Progressive muscle relaxation was given for 15-20 minutes daily to each subject for 2 weeks. Mean pre-test score was 52.4 and the mean post-test score was 38.14. There was a significant reduction in anxiety score. The study suggested that progressive muscle relaxation can be implemented in nursing homes, rehabilitation centres and community health centres.

**Anbu.K, Kumar et al (2013)** conducted a study which was to determine the effectiveness of progressive muscle relaxation technique on anxiety among elderly people. Data was obtained from 40 elderly persons staying in Sarvodaya old age home. Through the standard State Trait Anxiety Inventory Scale the level of anxiety was assessed. Purposive sampling technique was used. The research design of the study was quasi experimental design. The mean level of anxiety during pretest was 89.82 and during post test it was reduced to 69.55. There was

an effectiveness found after structured teaching programme of progressive muscle relaxation technique.

**Emily, Ruth et al (2013)** conducted study to assess the effect of relaxation therapy in reducing stress of cancer patients in Vellore in which one of the component of stress under study was anxiety. A total of 60 patients were randomly assigned to treatment and control groups. The experimental group received progressive muscle relaxation for five days (45 minutes per day), given by the investigator, while the control group received no treatment. The mean score of anxiety among experimental group was 1.17 and that of control group was 3.9. The study revealed that there is a significant relationship between anxiety and progressive muscle relaxation level of significance.

**Clark, L. A. & Watson, D. (2012)** conducted a study in Taiwan to assess the efficacy of progressive muscle relaxation in patients with acute schizophrenia. The objective of this study was to examine the efficacy of progressive muscle relaxation training on anxiety in patients with acute schizophrenia. Design used was an experimental randomized controlled trial using repeated measures. Study participants were acute psychiatric inpatients in Taiwan. Eighteen patients were block randomized and then assigned to an experimental or control group. The experimental group received progressive muscle relaxation training and control group received a placebo intervention. Results from Beck anxiety inventory were compared between groups. The degree of anxiety improvement was significantly higher in the progressive muscle relaxation training group than in the control group after progressive muscle relaxation training intervention and at follow-up. The study demonstrated that progressive muscle relaxation can effectively alleviate anxiety in patients with schizophrenia.

**Hi Van, Si, Yui (2012)** investigated in China (n=18) to measure the effect of progressive muscle relaxation on patients after stoma surgery. Eighteen patients who had undergone stoma surgery were assessed with respect to their anxiety level and self-reported quality of life on three occasions; namely immediately after surgery, 5 weeks after surgery, and 10 weeks after surgery. The patients were randomized into a control group (n=10) and an experimental group (n=8). A 20-min set of audiotaped instructions on progressive muscle relaxation training was given to the patients in the experimental group for home practice. Assessment included the Chinese state –trait anxiety inventory(C-STAI), the quality of life index for colostomy (QOL-Colostomy) and the Hong Kong Chinese version of the World Health Organization Quality of Life Scale(WHOQOL).Results indicated that there was significant decrease in Chinese State Trait Anxiety Inventory score in the experimental group.

**Kumarappa, Thangam wt al (2012)** conducted a comparative study in Mangalore to assess effectiveness of music and progressive muscle relaxation for anxiety in COPD patients (n=72). The study was aimed to evaluate the acute effects of music and progressive muscle relaxation (PMR) in hospitalized COPD subjects after a recent episode of exacerbation. Music group listened to a self selected music of 60-80 beats per minute for 30 minutes. PMR group practiced relaxation through a pre-recorded audio of instructions of 16 muscle groups. Outcome variables were Speilberger's state anxiety inventory (SSAI), Speilberger's trait anxiety inventory (STAI), dyspnea, systolic blood pressure (SBP), diastolic blood pressure (DBP), pulse rate (PR), and respiratory rate (RR). There was statistically significant main effect across the sessions for state anxiety and trait anxiety. There was statistically significant interaction effect between the two groups for state anxiety, trait anxiety. The study shows that music and PMR are effective in reducing anxiety and dyspnea along with physiologic measures in COPD patients hospitalized with exacerbation.



## **Literature related to effectiveness of jacobson progressive muscle relaxation technique among other disorder clients.**

### **1. Among HIV Clients**

**Bali LR, Raskin M, Peeke (2014)** conducted a study in Japan on application of relaxation in HIV positive patients where they examined the efficacy of relaxation techniques in a sample of HIV patients without AIDS in the early stages after infection, by comparing the three groups: relaxation group (progressive muscle relaxation and modified autogenic training); ordinary supportive psychotherapy group, and finally no psychiatric treatment group. Scores for anxiety, fatigue, depression and confusion, as measured by the profile of mood states (POMS), were significantly lower after relaxation than before. There were no significant differences in the POMS scores (except for anger) among the three groups. The two results suggest that a combination of progressive muscle relaxation and modified autogenic training is a useful method, which can be easily employed in HIV patients without AIDS.

**Chen KW, Berger CC, Manheimer E, et al. (2014)** investigation done in USA on the lived experience of a mind-body intervention for people living with HIV. Mind-body therapies such as progressive muscle relaxation training and guided imagery (PMRT-GI) are effective in treating stress and anxiety in chronically ill persons. The purpose of this study was to identify key elements of an effective and culturally acceptable PMRT-GI intervention for economically disadvantaged persons with HIV. PMRT-GI was provided to 24 participants from African American, White, and Hispanic backgrounds. Using Colaizzi's phenomenological method, participants were interviewed about their experiences with PMRT-GI. Responses were tape-recorded, read, and reread; significant phrases and sentences were identified; meanings were formulated; and results were validated with participants. Five themes emerged: another world, feeling

content, ease in muscle tension, one-on-one, and soft music. This study revealed that stress and anxiety are significant problems for individuals living with HIV.

**Eberth J Sedlmeier P, , Schwarz M, et al. (2013 )** a study conducted on the effects of a behavioral stress-management program on anxiety, mood, self-esteem, and T-cell count in HIV positive men. The programme consisted of 20 biweekly sessions of progressive muscle relaxation and electromyography biofeedback-assisted relaxation training, meditation, and hypnosis. Ten subjects were randomly assigned to either a treatment group or a no-treatment control group, and the 2 groups were compared on pre- to post treatment changes in the dependent measures, Analysis showed that, compared with the no-treatment group, the treatment group showed significant improvement on all the dependent measures, which was maintained at a 1-month follow-up. Since stress is known to compromise the immune system, these results suggest that stress management to reduce arousal of the nervous system and anxiety would be an appropriate component of a treatment regimen for HIV infection.

## **2. Among other disorder clients.**

**Babu M, Henry L, et al. (2014)** conducted a quasi experimental study was conducted to assess the effectiveness of Jacobson's progressive muscle relaxation on reduction of stress among antenatal mothers in Sir Ivan Stedford hospital Chennai. 30 primi mothers were selected by using randomized sampling technique and data were collected by self structured questionnaire and were analyzed by descriptive and inferential statistics. The result revealed that 66.66% of the samples had severe level of stress whereas 30% had moderate level of stress (70%) had mild level of stress. The overall mean score in the level of stress was 79 and SD5.3 with t value of 2.84, This shows that there was a reduction in the stress level. The Jacobson's deep muscle relaxation technique proved effective in reducing the level of stress among antenatal mothers.

**Kumarappa (2013)** investigated a study to assess the effectiveness of progressive muscle relaxation on level of stress among elderly hypertensive patients in Mangalore, India. In this study 40 hypertensive's were selected by purposive sampling technique. The result showed that the mean difference of pretest and post test stress scores 13.05 and standard deviation was 5.09. The t cal using paired t test was 11.458 which was more than table t tab(19)=2.09,(p<0.05). This indicated a significant reduction in level of stress among sample in the experimental group after practicing the Jacobson's progressive muscle relaxation.

**Kavitha, Selvin (2013)** conducted an experimental study in Bangalore city, among a group of students in a Personality Development Course Camp to assess the efficacy of integrated approach of Jacobson's Progressive Muscle Relaxation technique for anxiety in normal students. The sample comprised 60 students in the age group of 13-17 years selected randomly. Another set of 60 students from a school at Jamshedpur undergoing a day camp was considered as the control group. A psychological questionnaire method and anxiety rating scale were used. The result showed that there was reduced level of anxiety at 13.69% in the experimental group as compared to students of control group of 6.61% rise in anxiety level. The researcher concluded that progressive relaxation technique played a positive role in reducing the anxiety among the experimental group.

**Krug., S. E., Scheier, I.H., & Cattell,R.B. (2012).**conducted a quasi-experimental study to evaluate the effectiveness of progressive muscle relaxation on blood pressure and psychological status among 40 hypertensive subjects in Taiwan. The result revealed that progressive muscle relaxation training has an immediate effect, reducing the pulse rate 2.35bpm, systolic B.P 5.44 mm of Hg and diastolic B.P 3.48 mmHg after two weeks of training. After 4 weeks of progressive muscle relaxation further decrease in pulse rate 2.9 bpm, systolic B.P 5.1 mmHg and diastolic B.P 3.1 mmHg occurred. The study concluded that

progressive muscle relaxation significantly lowered the patient's perception on stress and it enhanced patient's perception on health and progressive muscle relaxation is beneficial for patients with essential hypertension.

**Jacobson, P.B., & Heather, S.J. (2012).**investigated on a randomized control trial was conducted to assess the effectiveness of stress reduction approaches such as transcendental meditation and progressive muscle relaxation among 127 older African Americans in Sanfrancisco. The results revealed that progressive muscle relaxation lowered the systolic B.P by 4.7 mm of Hg [ $P=0.054$ ] and diastolic pressure by 3.3 mm of Hg [ $P\leq 0.02$  mm of Hg].The study concluded that selected stress reduction techniques demonstrated efficacy in reducing hypertension in this sample of older African Americans.

**Conrad, A., & Roth, W. (2011)** conducted an experimental study to evaluate the effectiveness of relaxation training as complementary therapy for hypertension control and implications of evidenced based medicine among nine hypertensive Chinese subjects in Hongkong. The empirical work examined the effects of 3 relaxation therapies for the reduction of high B.P such as progressive muscle relaxation, stretch release relaxation and cognitive imagery relaxation. The results revealed that in the context of the study, all relaxation therapies can reduce B.P, and the study concluded that stretch release relaxation and progressive muscle relaxation therapies appeared to be more effective in lowering B.P compared to cognitive imagery relaxation.

**Vipina Mohan(2011)** investigated an experimental study to assess the effectiveness of progressive muscle relaxation on anxiety among 73 chronically ill patients with diabetes mellitus, hypertension and low back pain in selected hospitals at Mangalore. Out of that, 35 were selected and progressive muscle relaxation was given for 2 weeks. The study results show that mean pretest score was 52.4 and mean posttest score was 38.14. There was a significant reduction in

anxiety score. The study concluded that progressive muscle relaxation could be implemented in nursing homes, rehabilitation centers and community health centers.

**Mable Susan Mathew. (2010)** conducted a quasi-experimental study to determine the effectiveness of progressive muscle relaxation technique on anxiety among 40 elderly people in Bangalore. The results show that mean level of anxiety during pretest was 89.82 and during posttest, it was reduced to 69.55. The study concluded that there was an effectiveness found after progressive muscle relaxation technique.

**Neethu Ann Jose (2010)** conducted an experimental study on progressive muscle relaxation therapy in essential hypertension and stress among 171 hypertensive patients. The analysis of BP dynamic during 6 week revealed significantly ( $p < 0.001$ ) systolic BP ( $-10.4 \pm 0.8$ ) and diastolic BP ( $-7.7 \pm 0.6$ ) by the end of one year control group BP returned to the initial level. BP reduction has been found in 62% of patients in the main group and only 12% of patients of the control group. The study concluded that relaxation therapy is effective in reducing BP and stress.

## **2.2 Conceptual frame work**

All research studies have the frame work of back ground knowledge that provide the foundation for the study. The frame work serves to organize the study by placing it in the content of existing related knowledge as well as providing a context within to interpret the result of the study.

Concept is defined as a complex mental formation of an object, promptly on or even experience. Theories and conceptual models are primary means providing a conceptual context for the study.

Conceptualization is a process of forming ideas, which are utilized and forms conceptual frame work for the development of research design. It helps the investigator to know what data is needed to be collected and give direction to the entire research process.

The conceptual model selected for this study is based on “Widenbach’s helping arts of clinical nursing theory” adopted by Ernestine Widenbach’s in 1964, which aims to assess the effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department at Institute of Mental Health at Chennai.

The conceptualization of nursing practice according to the theory has three components which are as follows.

1. Identification of the patients need to help
2. Ministration of needed help
3. Validation of action taken to meet the needed help.

### **STEP –I- Identification**

It refers to the determination of the clients need for help by the process of sample selection on the basis of inclusion criteria followed by assessing level of anxiety by using Hamilton anxiety rating scale among the clients attending outpatient department at Institute of Mental Health at Chennai.

### **STEP –II- Ministration**

It refers to the provision of needs to fulfill the identified need.

It consist of three components

1. Central purpose
2. Prescription
3. Realities

**Central purpose:**

It refers to the effective of Jacobson progressive muscle relaxation technique on reducing anxiety among the clients attending outpatient department at “Institute of Mental Health|”at Chennai.

**Prescription:**

A prescription refers to the activity which specifies both nature of action and the thinking that will lead to fulfillment of nurse’s central purpose. This include the Jacobson progressive muscle relaxation technique on reducing anxiety among the clients by doing relaxation therapy with a breathing exercise and then moving from abdomen, shoulder, neck and the feet up, who were attending outpatient department at “Institute of Mental Health” at Chennai

**Realities:**

It indicates the factors that influence the nursing action that include 5 realities

**1. Agent**

The investigator is – Psychiatric Mental Health nurse.

**2. Recipient**

The anxiety clients attending outpatient department at the Institute of Mental Health at Chennai.

**3. Goal**

Reduce the anxiety of the clients attending outpatient department at “Institute of Mental Health” at Chennai.

**4. Mean**

The Jacobson progressive muscle relaxation technique focus on tightening and relaxing specific muscle groups in sequence. By concentrating on specific areas and tensing and then relaxing them, you can become more aware of your body and physical sensations.

**5. Framework**

It refers to the facilities in which nursing care is practical in selected hospital area in Chennai.

### **STEP- III - Validation:**

Validation refers to the collection of evidence shows that the out patients anxiety was reduced by practicing Jacobson progressive muscle relaxation. In this study validation includes reduction in the level of anxiety among outpatient clients with anxiety patients attending in selected hospital.



# Modified conceptual frame work of Widenbach's helping art of clinical nursing theory -1964

## CENTRAL PURPOSE

Assess the effectiveness of Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department at institute of mental health at Chennai.

Step-I  
Identification

Collect the demographic details and assess the anxiety level outpatient department mentally ill clients by Hamilton anxiety rating scale

P R E A S S E S S M E N T

Prescription  
Jacobson progressive muscle relaxation techniques among the mentally ill clients attending outpatient in Institute of Mental Health

Agent  
Investigator

Recipient  
Mentally ill clients attending outpatient in Institute of Mental Health

Realities

Frame work  
Selected Institute of Mental Health

Means  
Anxiety among the mentally ill clients was reduced by Jacobson progressive muscle relaxation technique

Goal  
Reduce the anxiety level among mentally ill clients

Step-II  
Ministration

EFFECT OF JACOBSON  
PROGRESSIVE MUSCLE  
RELAXATION

Moderate  
Anxiety moderately reduced among mentally ill clients

Adequate  
Anxiety markedly reduced among mentally ill clients

Step-III  
Validation

## **CHAPTER - III**

### **METHODOLOGY**

This chapter consists of the research design, the variables of the study, the setting, and the population sample, sample size, sampling technique, selection criteria, development and description of tool, content validity, pilot study, reliability, data collection procedure and plan for data analysis.

#### **3.1. Research approach**

The research approach used for this study is Quantitative approach.

#### **3.2 Data collection period**

Four weeks from 16.07.15 to 15.08.2015

#### **3.3 Study setting:**

The study was conducted in selected Institute of Mental Health, Chennai-10. Institute of Mental Health (IMH), Chennai is one of the old and big Institute in South Asia. The bed strength of the hospital is 1800. There is a separate Inpatient unit with 1500 beds and separate Anxiety clinic conducted every Wednesday around 150-250 patients attending anxiety clinic every week.

#### **3.4. Study design**

The research design selected for this study is one group pretest and posttest design.

<b>PRE TEST</b>	<b>INTERVENTION</b>	<b>POST TEST</b>
<b>O1</b>	<b>X-JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE</b>	<b>O2</b>

**O1** -Pretest to assess the level of anxiety assessed through Hamilton Anxiety rating scale among the mentally ill clients attending outpatient department in Institute of Mental Health, Chennai-10.

### **X –Jacobson Progressive Muscle Relaxation Technique**

**O2**-Posttest to assess the level of anxiety assessed through Hamilton Anxiety rating scale among the mentally ill clients attending outpatient department in Institute of Mental Health, at Chennai-10.

### **3.5. Study population**

The population of the study mentally ill clients with anxiety attending outpatient department in selected Institute of Mental Health, at Chennai-10.

### **3.6. Sample size**

The study sample comprises 60 clients with anxiety attending outpatient department in selected Institute of Mental Health, at Chennai-10, those who fulfilled the inclusion criteria.

### **3.7. Criteria for sample selection**

#### **3.7.1 Inclusion criteria:**

- Mentally ill clients with anxiety attending outpatient department in selected Institute of Mental Health, at Chennai-10 in the age group of 20-50 years.
- Mentally ill clients with anxiety attending outpatient department who are available during the data collection period.
- Mentally ill clients with anxiety attending outpatient department who are willing give consent for the study.
- Mentally ill clients with anxiety attending outpatient department who are able to read Tamil.

### **3.7.2 Exclusion criteria:**

- Mentally ill clients with anxiety attending outpatient department those who are unable to do progressive muscle relaxation technique.
- Mentally ill clients with anxiety attending outpatient department who are already expose to this technique.

### **3.8. Sampling techniques**

The techniques were selected simple random technique based on the inclusive criteria.

### **3.9 Research variables:**

Variables are characteristics that vary among the subjects being studied

#### **Dependent Variable**

The level of the level of anxiety assessed through Hamilton Anxiety rating scale among the mentally ill clients attending outpatient department in Institute of Mental Health, at Chennai-10.

#### **Independent variable**

Jacobson Progressive Muscle Relaxation Technique (includes reducing anxiety among mentally ill clients, by tightening and relaxing specific muscle groups in sequence as by doing relaxation therapy with a breathing exercise and then moving from abdomen, shoulder, neck and the feet up.)

### **3.10. Development and description of the tool**

#### **The tool comprises of 2 sections**

#### **3.10.1 Development of the tool.**

Tool was selected after extensive literature review from the various text books, Internet search, guidance and discussion with experts in the field of nursing and psychiatry and statistics. A structured questionnaire was used to collect data from the anxiety disorder clients who were admitted in outpatient department of IMH.

### **3.10.2 Description of the tool.**

**The tool consist of two sections A and B :**

#### **Section – A:**

Comprises demographic variables in which age, sex, marital status, education, religion, occupation, residence, community area, any family history of anxiety disorders, when anxiety disorders was detected, treatment regimen, any previous episode of anxiety disorder and knowledge about relaxation therapy patient.

#### **Section – B:**

Knowledge questionnaire comprised of 14 items to evaluate level of anxiety among mentally ill clients attending outpatient department in Institute of Mental Health at Chennai-10.

### **3.10.3 Content Validity**

Validity refers to the degree with which an instrument measures what it is supposed to be measuring (Polite and Hungler 2013) Since it is a investigator made tool further standardization was required which is obtained from the nursing experts, psychiatric medical officer, clinical psychologist. The tool was translated in Tamil and re translated into English by language experts.

### **3.11. Ethical consideration.**

The study objective, intervention and data collection procedures were approved by the ethic committee of the DR, M.G.R. Medical University, permission for conducting the study was Obtained from the Head of Department, Department of Psychiatric Nursing, College of nursing, Madras Medical College, Chennai, and the each study subject before starting the data collection and assurance was given that confidentiality and privacy would be maintained.

### **3.12. Pilot study**

Pilot study was conducted from 22.06.2015 to 27.06.2015 to examine the feasibility, and practicability of this study. Pilot study was conducted among 5 family care givers those who were residing in choolai at Chennai. It revealed that the study was feasible. Data were analyzed to find out the suitability of statistical method.

### **3.13. Reliability of tool**

The Hamilton anxiety scale was a standardized inventory questions had demonstrated very good reliability. A test retest correlation coefficient value  $r=0.82$  which signifies that the tool is reliable.

### **3.14. Data collection procedure**

The study was conducted in institute of mental health, Chennai. A formal permission was obtained from Director for four weeks. The investigator selected variety of families with mental illness clients with anxiety disorder attending outpatient department in Institute of Mental Health at Chennai. Before conducting the study, the investigator obtained permission from the Director and Medical officer of outpatient department. The study period was between 17.07.15 to 16.08.15.

### **Phase I**

This Institute of Mental Health at Kilpauk, Chennai-10 comprises of Inpatients (1800 census) and outpatients departments (600-800) separately, in which clients attending outpatient department with anxiety disorders were simple randomly assessed for anxiety by using Hamilton Anxiety Rating Scale, it took 30-45 minutes to complete the assessment form, out of minimum 10-25 clients per day attended were identified with anxiety disorder condition.

## **Phase II**

In this phase, the investigator obtained history from 70 mentally ill clients with anxiety who were attending outpatient department in Institute of Mental Health. they had tensed, palpitations, perspiration, mild dysphonic and mild tremor.

The obtained scores 25-30 were moderate to severe, 18-24 were mild to moderately severity and below 17 were mild severity. Investigator selected 60 anxiety clients with mental illness by simple random technique. The person Those who fulfilled the inclusion criteria were selected for the intervention. During the study, dropped out anxiety clients with mental illness were 10. In which four of them were sick, two were not willing and four is unable to participate due to physical inability. Following the assessment, 4 weeks of Jacobson progressive muscle relaxation was administered. They were attended for 45 minutes twice a day. After the 4th week post test level was done to assess the effectiveness.

### **Steps of Jacobson progressive muscle relaxation technique.**

PMR has two processing one is tensing the muscle groups and another one is relaxing the tightened muscle groups. The following steps are

**Step 1:** Assume a comfortable position. You may lie down; loosen any tight clothing, close your eyes and be quiet.

**Step 2:** Assume a passive attitude. Focus on yourself and on achieving relaxation in specific body muscles. Tune out all other thoughts.

**Step 3.** Tense and relax each muscle group as follows:

- **Forehead** - Wrinkle your forehead; try to make your eyebrows touch your hairline for five seconds. Relax.
- **Eyes and nose** - Close your eyes as tightly as you can for five seconds. Relax.
- **Lips, cheeks and jaw** - Draw the centers of your mouth back and grimace for five seconds. Relax. Feel the warmth and calmness in your face.

- **Hands** - Extend your arms in front of you. Clench your fists tightly for five seconds. Relax. Feel the warmth and calmness in your hands.
- **Forearms** - Extend your arms out against an invisible wall and push forward with your hands for five seconds. Relax.
- **Upper arms** - Bend your elbows. Tense your biceps for five seconds. Relax. Feel the tension leave your arms.
- **Shoulders** - Shrug your shoulders up to your ears for five seconds. Relax.
- **Back** - Arch your back off the floor for five seconds. Relax. Feel the anxiety and tension disappearing.
- **Stomach** - Tighten your stomach muscles for five seconds. Relax.
- **Hips and buttocks** - Tighten your hip and buttock muscles for five seconds. Relax.
- **Thighs** - Tighten your thigh muscles by pressing your legs together as tightly as you can for five seconds. Relax.
- **Feet** - Bend your ankles toward your body as far as you can for five seconds. Relax.
- **Toes** - Curl your toes as tightly as you can for five seconds. Relax.

**Step 4:** Focus on any muscles which may still be tense. If any muscle remains tense, tighten and relax those specific muscle three or four times

**Step 5:** Fix the feeling of relaxation in your mind. Resolve to repeat the process again. Remember, people respond differently to various activities. Some feel pleasant or refreshed, and others feel calm and relaxed after an activity like this one. Some people notice little change the first time, but with practice, their control increases - as well as the benefits. If you practice this activity, your relaxation should increase.



## SCHEDULE OF DATA COLLECTION PROCEDURE

S.No	Day	Activity
1	I	Introduction about study, Pre Test
2	II	Definition of anxiety, prevalence and Incidence
3	III	Causes, Types, Triggering factors
4	IV	Adverse effect, and Physiological and psychological changes
5	V	Effect on mental illness and family
6	VI	Educate and demonstrate on Jacobson Muscle Relaxation Techniques
7	VII	Demonstrate the techniques along with group clients
8	VIII	Repeat that technique in the home environment
9	4 weeks	Post evaluation will be conducted

### Intervention protocol :

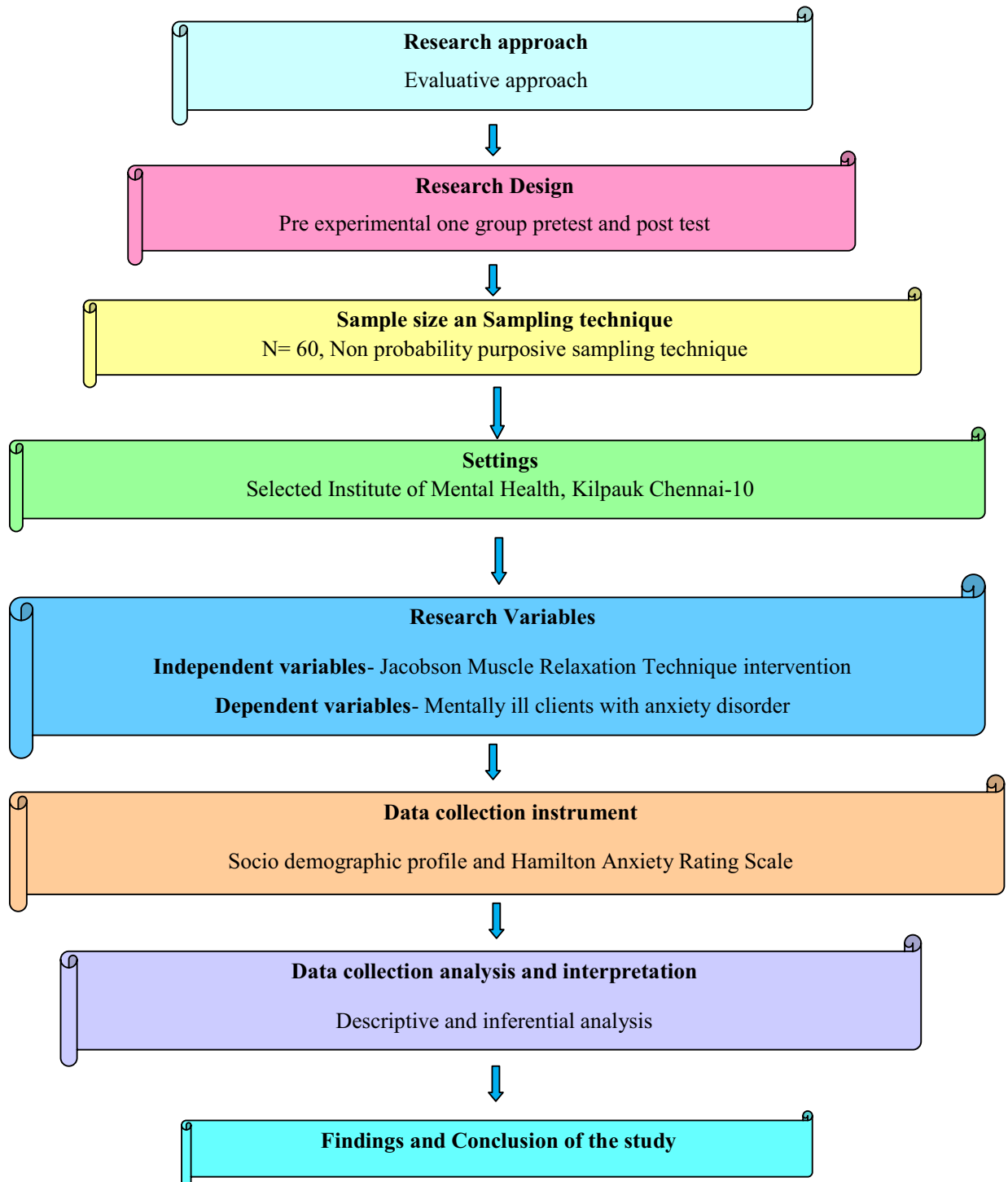
Place : Anxiety OPD in IMH.  
 Intervention : JPMR  
 Tool : Hamilton Anxiety Rating scale  
 Time : 8 am. to 9 am. (Morning) 5 pm. to 6 pm. (Evening)  
 Administered by : Investigator  
 Recipient : Anxiety and mentally ill-clients.  
 The investigator provides JPMR by placing the patient in calm room in a lying position.

### 3.15. Data Entry and Analysis

Data were analyzed according to the objectives of the study and both descriptive and inferential statistics were used

- ❖ Analysis of the demographic variables were given in frequencies and with their percentage
- ❖ “t” test was used to determine the difference between the pretest and posttest score in term of anxiety among mentally ill clients.
- ❖ Chi square test was used to associate Post test scores with selective socio demographic variables.

## SCHEMATIC REPRESENTATION OF THE STUDY



## **CHAPTER IV**

### **ANALYSIS AND INTERPRETATION**

This chapter deals with the analysis and interpretation of the data obtained from the anxiety disorder clients, attending outpatient department at Institute of Mental Health hospital at Chennai.<sup>10</sup>

- |              |   |   |
|--------------|---|---|
| SECTION I    | : | Socio demographic characteristics of the study subjects                                   |
| SECTION II   | : | Level of anxiety before Jacob muscle relaxation technique therapy intervention.           |
| SECTION III  | : | Pre-test Level of anxiety   |
| SECTION IV   | : | Domainwise anxiety score after JPMR Technique Therapy Intervention                        |
| SECTION V    | : | Post-test Level of anxiety score  |
| SECTION VI   | : | Comparison of pretest and posttest anxiety score  |
| SECTION VII  | : | Comparison of overall anxiety score   |
| SECTION VIII | : | Comparison of pretest and posttest score  |
| SECTION IX   | : | Question wise anxiety reduction score   |
| SECTION X    | : | Effectiveness of Jacobson progressive muscle relaxation technique                         |
| SECTION XI   | : | Association between level of anxiety reduction score and patients demographic variables . |

## DISTRIBUTION OF DEMOGRAPHIC PROFILE

**Table 1: DEMOGRAPHIC PROFILE**

S. No	Demographic variables		frequency	in%
1	Age	20 -30	35	58.3
		30 -40	20	33.3
		40 -50	5	8.4
2	Sex	Male	38	63.3
		Female	22	36.7
3	Marital status	Married	32	53.3
		Unmarried	27	45.0
		Widower	1	1.7
4	Education	Primary education	13	21.7
		Secondary Education	29	48.3
		Graduate and above	18	30.0
5	Religion	Hindu	33	55.0
		Christian	17	28.3
		Muslim	10	16.7
6	Occupation	Cooly /labour	19	31.7
		Self employee/Business	29	48.3
		Private employee /Government	8	13.3
		House wife/No Job dependence	4	6.7
7	Family Income	≤ Rs. 6000	18	30.0
		Rs.6001 -10,000	23	38.4
		Rs.10,001 -15,000	14	23.3
		Rs.15,001- 20,000	5	8.3
8	Residence	Rural	32	53.3
		Semi urban	15	25.0
		Urban	13	21.7
9	Family history of anxiety disorders	Yes	9	15.0
		No	51	85.0
10	When anxiety disorders was detected	Birth to 1 Year	11	18.3
		1-3 years	6	10.0
		3-6 years	1	1.7
		> 6 years	42	70.0
11	Treatment regimen	Diet and Medication	52	86.7
		Diet, exercise and oral drug	8	13.3
12	Any previous episode of anxiety disorder	Yes	59	98.3
		No	1	1.7
13	Knowledge about relaxation therapy	Yes	22	36.7
		No	38	63.3

Table 1 shows the demographic information of patients of those who participated in the study. Age wise most of them were 35 (58.3%) 20-30 years, highest of them were male persons 38 (63.3%), majority of them were married 32 (53.3%), nearly half of their education level was higher secondary / Diploma 29 (48.3%), more than half of them were of Hindu religion 33 (55.0%), majority of them were occupied in business or were self employee 29 (48.3%), most of their income was 6001- 10,000, 28 (38.3%), more than half of them resided in rural side 32 (53.3%).

Majority of them that had family history of anxiety disorders were No 51 (85.0%), highest of the clients with anxiety disorders were detected >6 years 42 (70.0%), regarding treatment regimen wise diet and medication 52 (86.7%), most of them said that they had previous episode of anxiety disorder 59 (98.3%), and finally those who had knowledge about relaxation therapy was 38 (63.3%).

Objective 2: To Assess the level of anxiety before Jacobson progressive muscle relaxation technique therapy intervention.

**Table 3: EACH DOMAIN WISE PERCENTAGE OF ANXIETY SCORE BEFORE JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE THERAPY INTERVENTION**

Sno	Domains	Maximum score	Mean	Std Deviation	In % of mean score
1	Anxious mood	4	2.65	.63	66.3
2	Tension	4	2.82	.79	70.5
3	Fears	4	2.47	.85	61.8
4	Insomnia	4	2.53	.77	63.3
5	Intellectual	4	2.70	.85	67.5
6	Depressed mood	4	2.50	.87	62.5
7	Somatic (muscular)	4	2.72	.85	68.0
8	Somatic (sensory)	4	2.78	.90	69.5
9	Cardiovascular symptoms	4	2.70	.89	67.5
10	Respiratory symptoms	4	2.68	.81	67.0
11	Gastrointestinal symptoms	4	2.72	.88	68.0
12	Genitourinary symptoms	4	2.87	1.01	71.8
13	Autonomic symptoms	4	2.85	.95	71.3
14	Behavior at interview	4	2.65	.95	66.3
	<b>Overall</b>	<b>56</b>	<b>37.63</b>	<b>5.77</b>	<b>67.2</b>

Tables 3 assess each domain wise percentage of anxiety score before Jacobson progressive muscle relaxation technique therapy intervention. They are having maximum score in genitourinary symptoms were 71.8% and minimum score in Fears were 61.8%. Over all they are having 67.2% of anxiety score.

**Table 4: PRETEST LEVEL OF ANXIETY SCORE**

<b>Anxiety level</b>	<b>No. of patients</b>	<b>%</b>
<b>Mild</b>	<b>0</b>	<b>0.0</b>
<b>Mild to Moderate</b>	<b>11</b>	<b>18.3</b>
<b>Moderate to Severe</b>	<b>49</b>	<b>81.7</b>
<b>Total</b>	<b>60</b>	<b>100.0</b>

Table 3 shows that none of the patients are having mild anxiety, 18.3% of them are having mild to moderate anxiety and 81.7% of them are having moderate to severe anxiety

### **Scoring**

Each item is scored on a scale of 0 (not present) to 4(severe) with a total score range of 0–56.

- <17 Mild Severity,
- 18–24 Mild to Moderate Severity and
- 25–30 Moderate to Severe.

Objective 3: To assess the anxiety level after Jacobson progressive muscle relaxation technique intervention

**Table 5: EACH DOMAINWISE PERCENTAGE OF ANXIETY SCORE AFTER JACOB MUSCLE RELAXATION TECHNIQUE THERAPY INTERVENTION**

sno	Domains	Maximum score	Mean	Std Deviation	% of mean score
1	Anxious mood	4	1.37	.49	34.3
2	Tension	4	1.38	.49	34.5
3	Fears	4	1.40	.49	35.0
4	Insomnia	4	1.33	.48	33.3
5	Intellectual	4	1.35	.48	33.8
6	Depressed mood	4	1.42	.53	35.5
7	Somatic (muscular)	4	1.32	.47	33.0
8	Somatic (sensory)	4	1.42	.50	35.5
9	Cardiovascular symptoms	4	1.62	.49	40.5
10	Respiratory symptoms	4	1.40	.49	35.0
11	Gastrointestinal symptoms	4	1.63	.49	40.8
12	Genitourinary symptoms	4	1.60	.49	40.0
13	Autonomic symptoms	4	1.32	.47	33.0
14	Behavior at interview	4	1.23	.43	30.8
	<b>Overall</b>	<b>56</b>	<b>19.78</b>	<b>3.14</b>	<b>35.3</b>

Tables 5 Assess each domain wise percentage of anxiety score after Jacobson progressive muscle relaxation technique therapy intervention. They are having maximum score in Gastrointestinal symptoms were 40.8% and minimum score in Behaviour interview were 30.8%. Over all they are having 35.3% of anxiety score.



**Table 6: POSTTEST LEVEL OF ANXIETY SCORE**

<b>Anxiety level</b>	<b>No. of patients</b>	<b>In %</b>
<b>Mild</b>	<b>19</b>	<b>31.7</b>
<b>Mild to Moderate</b>	<b>41</b>	<b>68.3</b>
<b>Moderate to Severe</b>	<b>0</b>	<b>0.0</b>
<b>Total</b>	<b>60</b>	<b>100.0</b>

Table 6 shows that the 31.7% of the patients are having mild anxiety, 68.3% of them are having mild to moderate anxiety and none of them are having moderate to severe anxiety

Objective 4: To assess the effectiveness of the Jacobson progressive muscle relaxation technique intervention.

**Table 7: COMPARISON OF PRETEST AND POSTTEST ANXIETY SCORE**

SNO	Domains	Pretest		Posttest		Mean difference	Student paired t-test
		Mean	SD	Mean	SD		
1	Anxious mood	2.65	.63	1.37	.49	1.28	t=13.89 p=0.001*** significant
2	Tension	2.82	.79	1.38	.49	1.44	t=12.21 p=0.001*** significant
3	Fears	2.47	.85	1.40	.49	1.07	t=8.09 p=0.001*** significant
4	Insomnia	2.53	.77	1.33	.48	1.2	t=11.34 p=0.001*** significant
5	Intellectual	2.70	.85	1.35	.48	1.35	t=11.19 p=0.001*** significant
6	Depressed mood	2.50	.87	1.42	.53	1.08	t=8.89 p=0.001*** significant
7	Somatic (muscular)	2.72	.85	1.32	.47	1.4	t=12.79 p=0.001*** significant
8	Somatic (sensory)	2.78	.90	1.42	.50	1.36	t=11.83 p=0.001*** significant
9	Cardiovascular symptoms	2.70	.89	1.62	.49	1.08	t=8.72 p=0.001*** significant
10	Respiratory symptoms	2.68	.81	1.40	.49	1.28	t=11.00 p=0.001*** significant
11	Gastrointestinal symptoms	2.72	.88	1.63	.49	1.09	t=8.89 p=0.001*** significant
12	Genitourinary symptoms	2.87	1.01	1.60	.49	1.27	t=8.69 p=0.001*** significant
13	Autonomic symptoms	2.85	.95	1.32	.47	1.53	t=12.02 p=0.001*** significant
14	Behavior at interview	2.65	.95	1.23	.43	1.42	t=11.05 p=0.001*** significant
		37.63	5.77	19.78	3.14	17.85	t=19.71 p=0.001*** significant

Significant at  $P \leq 0.05$  \*\* highly significant at  $P \leq 0.01$  \*\*\* very high significant at  $P \leq 0.001$

**Table 8: COMPARISON OF OVERALL ANXIETY SCORE**

	No. of patients	Mean	SD	Mean Difference	Student's paired t-test
Pretest	60	37.63	5.77	17.85	t=19.71 P=0.001*** significant
Posttest	60	19.78	3.14		

\* Significant at  $P \leq 0.05$  \*\* Highly Significant at  $P \leq 0.01$  \*\*\* Very High Significant at  $P \leq 0.001$

**(fig14)**

*Table no 7 shows the comparison of overall anxiety score between pretest and posttest.*

In Pretest, patients are having 37.63 score where as in posttest they are having 19.78 score, so the difference is 17.85. This difference between pretest and posttest is large and it is statistically significant. *Differences between pretest and posttest score was analysed using paired t-test.*

**Table 9: COMPARISON OF PRETEST AND POSTTEST SCORE**

Level of anxiety	Pretest		Posttest		Chi Square test
	No. of patients	%	No. of patients	%	
Mild	0	0.0	19	31.7	$\chi^2=85.30$ P=0.001***  Significant
Mild to Moderate	11	18.3	41	68.3	
Moderate to Severe	49	81.7	0	0.0	
Total	60	100.0	60	100.0	

\* Significant at  $P \leq 0.05$  \*\* Highly Significant at  $P \leq 0.01$  \*\*\* Very High Significant at  $P \leq 0.001$

*Table no.8 assess the pretest and posttest level of score.*

Before **Jacobson progressive muscle relaxation technique**, none of the patients are having mild anxiety, 18.3% of them are having mild to moderate anxiety and 81.7% of them are having moderate to severe anxiety. *After Jacobson progressive muscle relaxation technique*, 31.7% of the patients are having mild anxiety , 68.3% of them are having mild to moderate anxiety and none of them are having moderate to severe anxiety.

**Table 10: QUESTION WISE ANXIETY REDUCTION SCORE**

<b>SNO</b>	<b>QUESTIONS</b>	<b>Pretest</b>	<b>Posttest</b>	<b>% of anxiety reduction score</b>
1	<b>Anxious mood</b>	66.3%	34.3%	32.0
2	<b>Tension</b>	70.5%	34.5%	36.0
3	<b>Fears</b>	61.8%	35.0%	26.8
4	<b>Insomnia</b>	63.3%	33.3%	30.0
5	<b>Intellectual</b>	67.5%	33.8%	33.7
6	<b>Depressed mood</b>	62.5%	35.5%	27.0
7	<b>Somatic (muscular)</b>	68.0%	33.0%	35.0
8	<b>Somatic (sensory)</b>	69.5%	35.5%	34.0
9	<b>Cardiovascular symptoms</b>	67.5%	40.5%	27.0
10	<b>Respiratory symptoms</b>	67.0%	35.0%	32.0
11	<b>Gastrointestinal symptoms</b>	68.0%	40.8%	27.2
12	<b>Genitourinary symptoms</b>	71.8%	40.0%	31.8
13	<b>Autonomic symptoms</b>	71.3%	33.0%	38.3
14	<b>Behavior at interview</b>	66.3%	30.8%	35.5
	<b>OVERALL</b>	<b>67.2%</b>	<b>35.3%</b>	<b>31.9</b>

Table 10 shows each question wise BPRS gain score.

**Table 11: EFFECTIVENESS OF JACOBSON PROGRESSIVE MUSCLE  
RELAXATION TECHNIQUE**

	Max score	Mean BPRS score	Mean Difference in anxiety reduction score with 95% Confidence interval	Percentage of anxiety reduction score with 95% Confidence interval
<b>Pretest</b>	56	37.63	<b>17.85(16.03 – 19.66)</b>	<b>31.9 %( 28.6% –35.1%)</b>
<b>Posttest</b>	56	19.78		

Table no 11 shows the comparison of overall anxiety score between pretest and posttest.

*On an average, in post test, patients are **reduced to 31.9%** of anxiety score after implementing **Jacobson progressive muscle relaxation technique**. Differences between pretest and posttest score was analysed using percentage with 95% CI and mean difference with 95% CI.*

**Table 12: ASSOCIATION BETWEEN LEVEL OF ANXIETY REDUCTION SCORE AND PATIENTS DEMOGRAPHIC VARIABLES**

Demographic variables		Anxiety reduction score				Total	Chi square test
		Below average(≤17.85)		Above average(>17.85)			
				n	%		
Age	20 -30 years	22	62.9	13	37.1	35	<b>χ2=5.93 P=0.05* DF=2 significant</b>
	30 -40 years	7	35.0	13	65.0	20	
	40 -50 years	1	20.0	4	80.0	5	
Sex	Male	22	57.9	16	42.1	38	<b>χ2=2.58 P=0.10 DF=1 not significant</b>
	Female	8	36.4	14	63.6	22	
Marital status	Married	14	43.8	18	56.3	32	<b>χ2=2.42 P=0.29 DF=2 not significant</b>
	Unmarried	16	59.3	11	40.7	27	
	Widower			1	100.0	1	
Education	Primary	10	76.9	3	23.1	13	<b>χ2=7.35 P=0.03* DF=2 significant</b>
	Secondary	15	51.9	14	48.1	29	
	Graduate	5	27.8	13	72.2	18	
Religion	Hindu	19	57.6	14	42.4	33	<b>χ2=2.41 P=0.29 DF=2 not significant</b>
	Christian	8	47.1	9	52.9	17	
	Muslim	3	30.0	7	70.0	10	
Occupation	Cooly /labour	9	47.4	10	52.6	19	<b>χ2=1.08 P=0.79 DF=3 not significant</b>
	Self employee/business	14	48.3	15	51.7	29	
	Private employee /government	4	50.0	4	50.0	8	
	House wife/no job dependence	3	75.0	1	25.0	4	
Income	< Rs. 6000	9	50.0	9	50.0	18	<b>χ2=0.24 P=0.97 DF=3 not significant</b>
	Rs.6001 -10,000	12	52.2	11	47.8	23	
	Rs.10,001 -15,000	7	50.0	7	50.0	14	
	Rs.15,001- 20,000	2	40.0	3	60.0	5	
Residence	Rural	21	65.6	11	34.4	32	<b>χ2=6.71 P=0.03* DF=2 significant</b>
	Semiurban	5	33.3	10	66.7	15	
	Urban	4	30.7	9	69.3	13	
Family history of anxiety disorders	Yes	5	55.6	4	44.4	9	<b>χ2=0.13 P=0.71 DF=1 not significant</b>
	No	25	49.0	26	51.0	51	
When anxiety disorders was detected	Birth to 1 Year	8	72.7	3	27.3	11	<b>χ2=7.46 P=0.06 DF=3 not significant</b>
	1-3 years	5	83.3	1	16.7	6	
	3-6 years	0	0.0	1	100.0	1	
	> 6 years	17	40.4	25	59.6	42	
Treatment regimen	Diet and Medication	25	48.1	27	51.9	52	<b>χ2=0.57 P=0.44 DF=1 not significant</b>
	Diet, exercise and oral drug	5	62.5	3	37.5	8	
Any previous episode of anxiety disorder	Yes	29	49.2	30	50.8	59	<b>χ2=1.01 P=0.31 DF=1 not significant</b>
	No	1	100.0			1	
Knowledge about relaxation therapy	Yes	9	40.9	13	59.1	22	<b>χ2=4.59 P=0.03* DF=1 significant</b>
	No	21	55.3	17	44.7	38	

Table 12 shows the association between anxiety reduction score and patients demographic variables. Elders, more educated, urban and previous knowledge of relaxation therapy patients are reduced more anxiety than others. Statistical significance was calculated using chi square test.

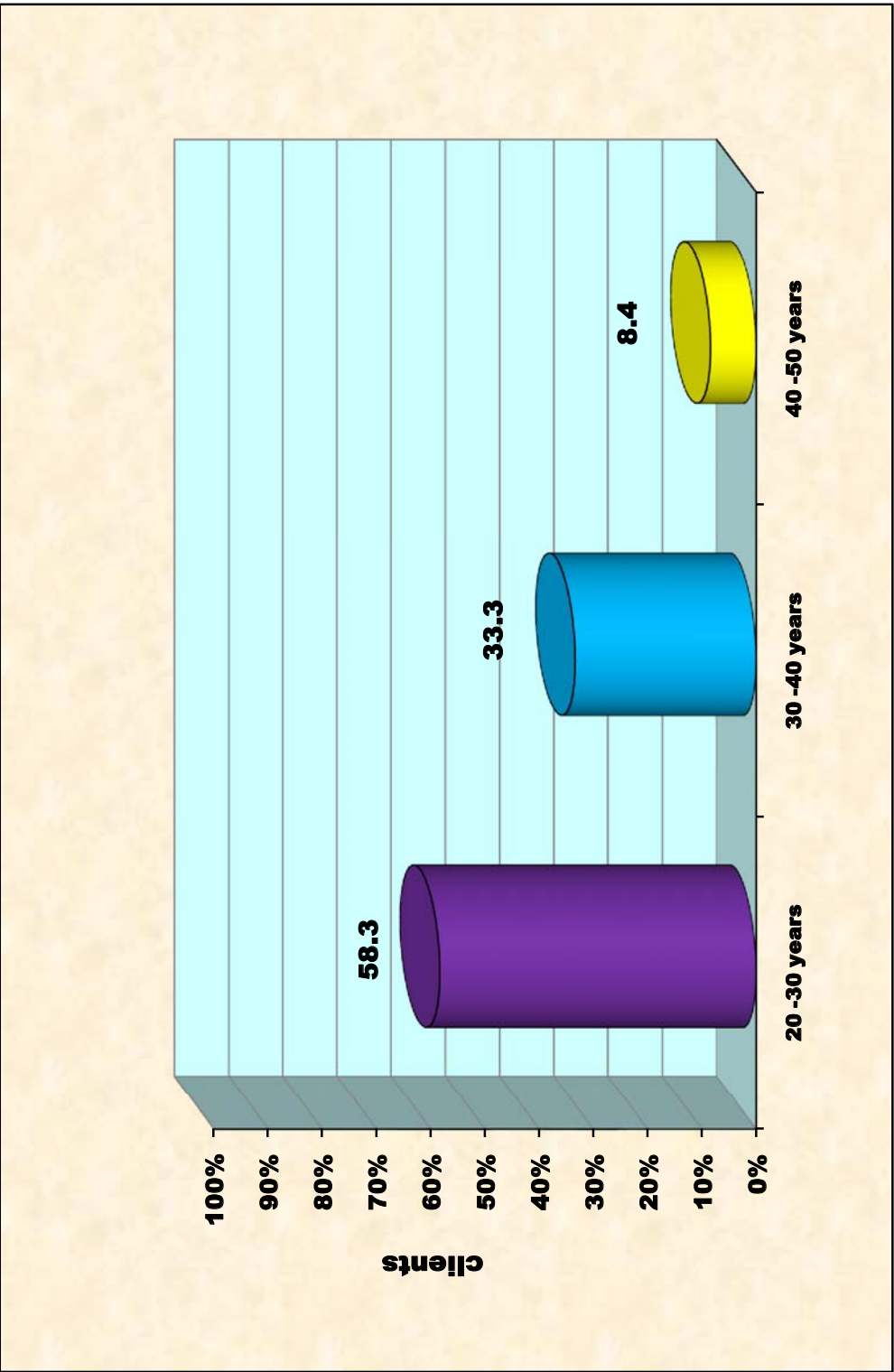
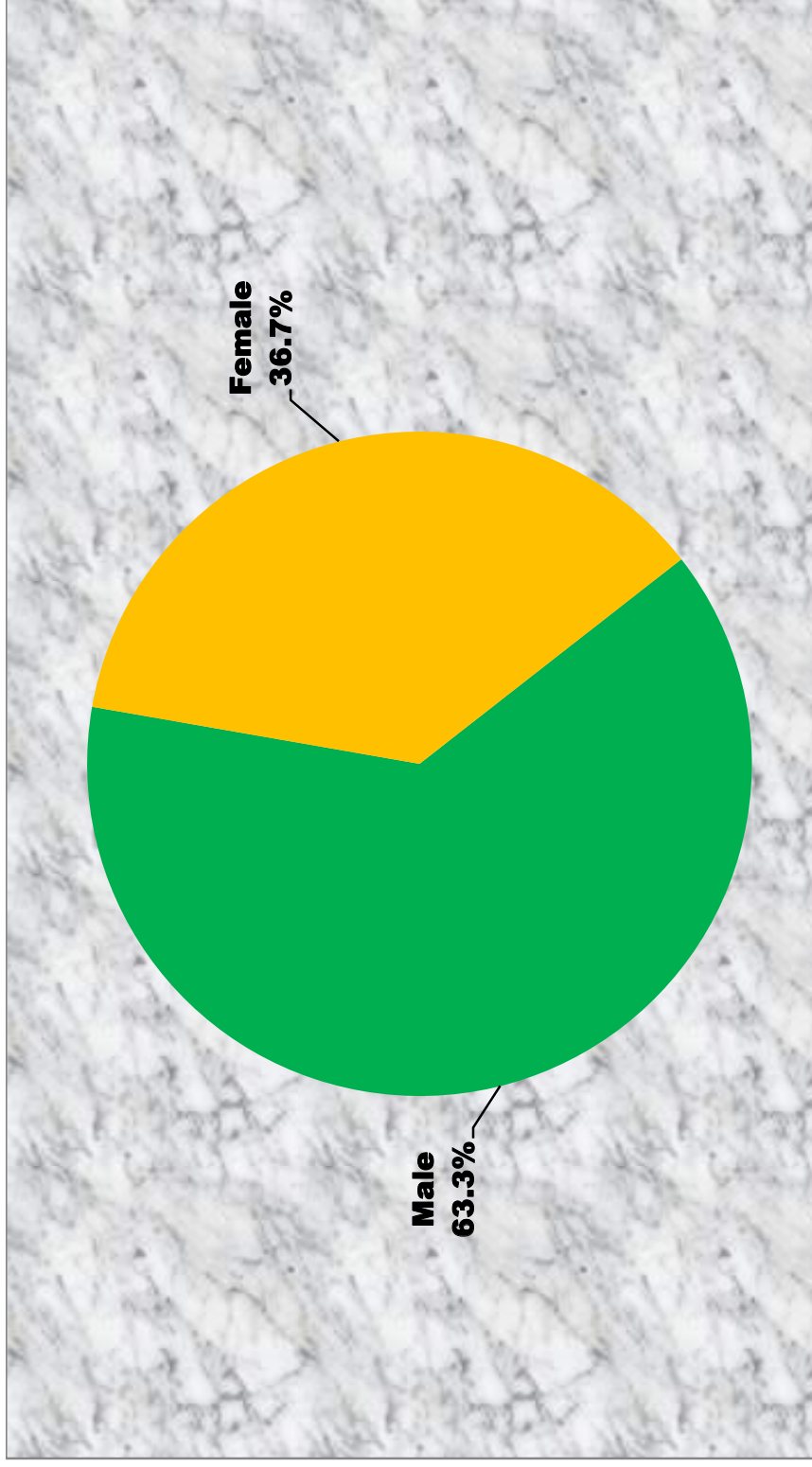


Fig 3 – Age Wise Distribution





**Fig 4 – Gender Wise Distribution**

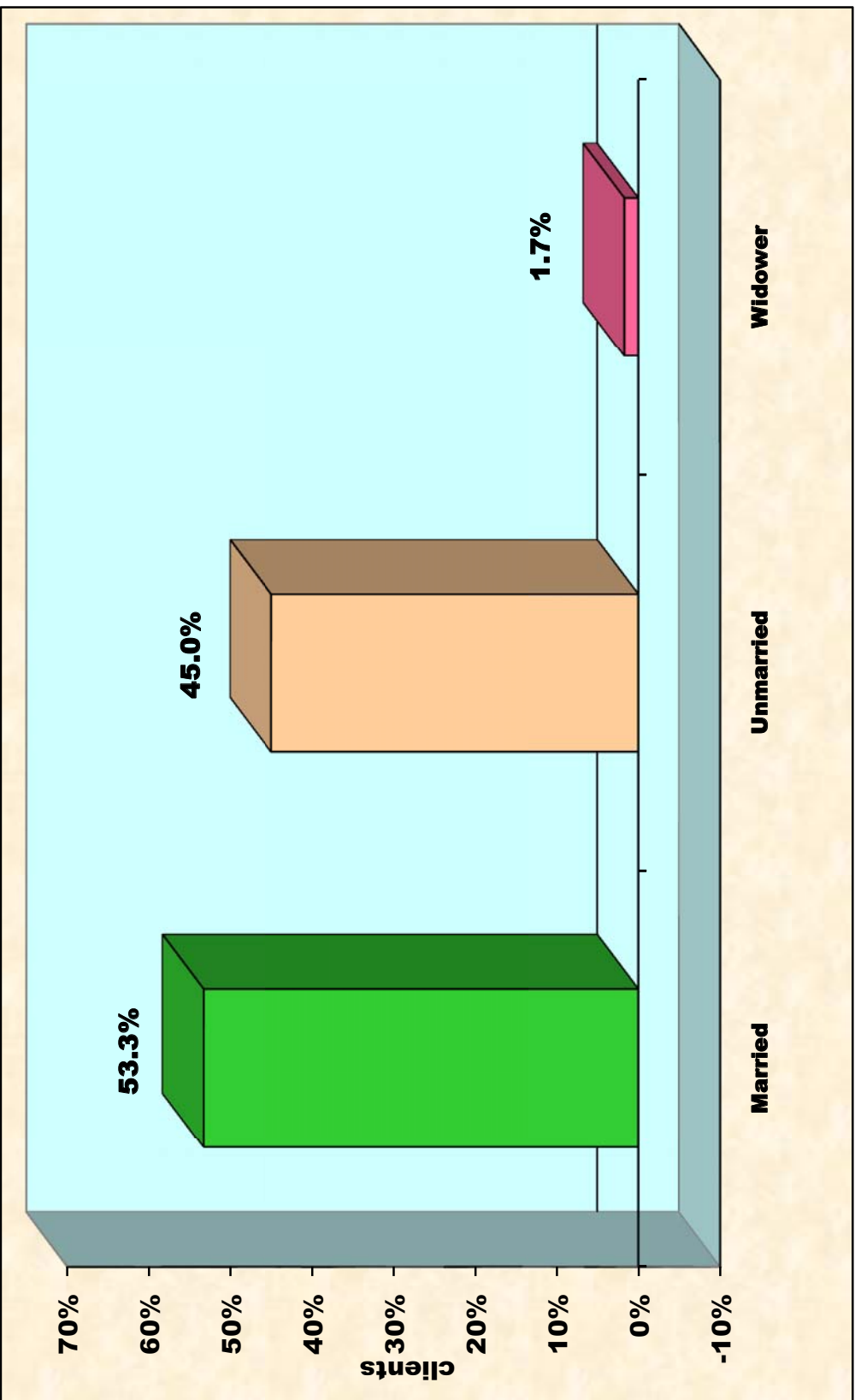
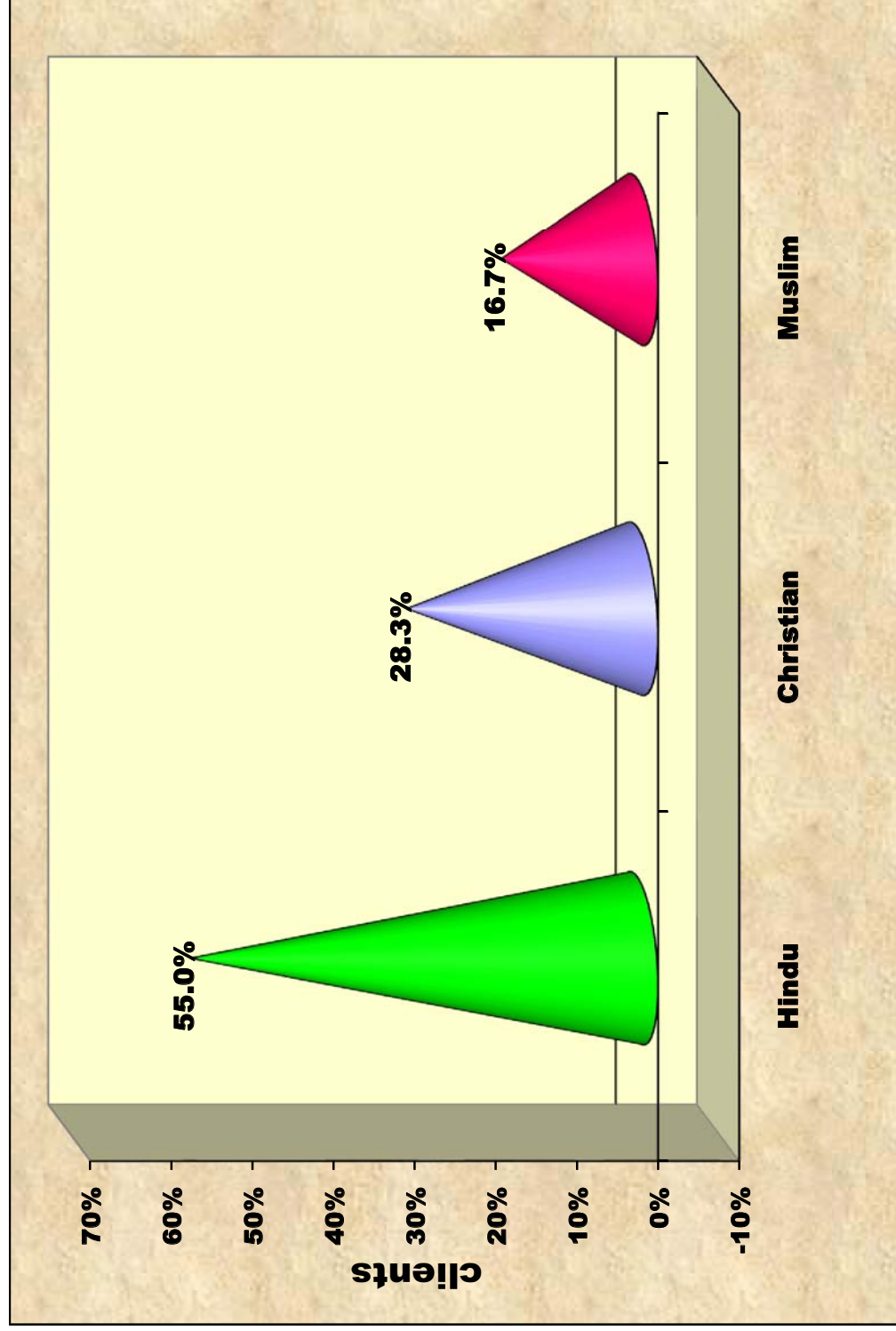


Fig 5 - Marital Status



**Fig 6 – Religion wise Distribution**

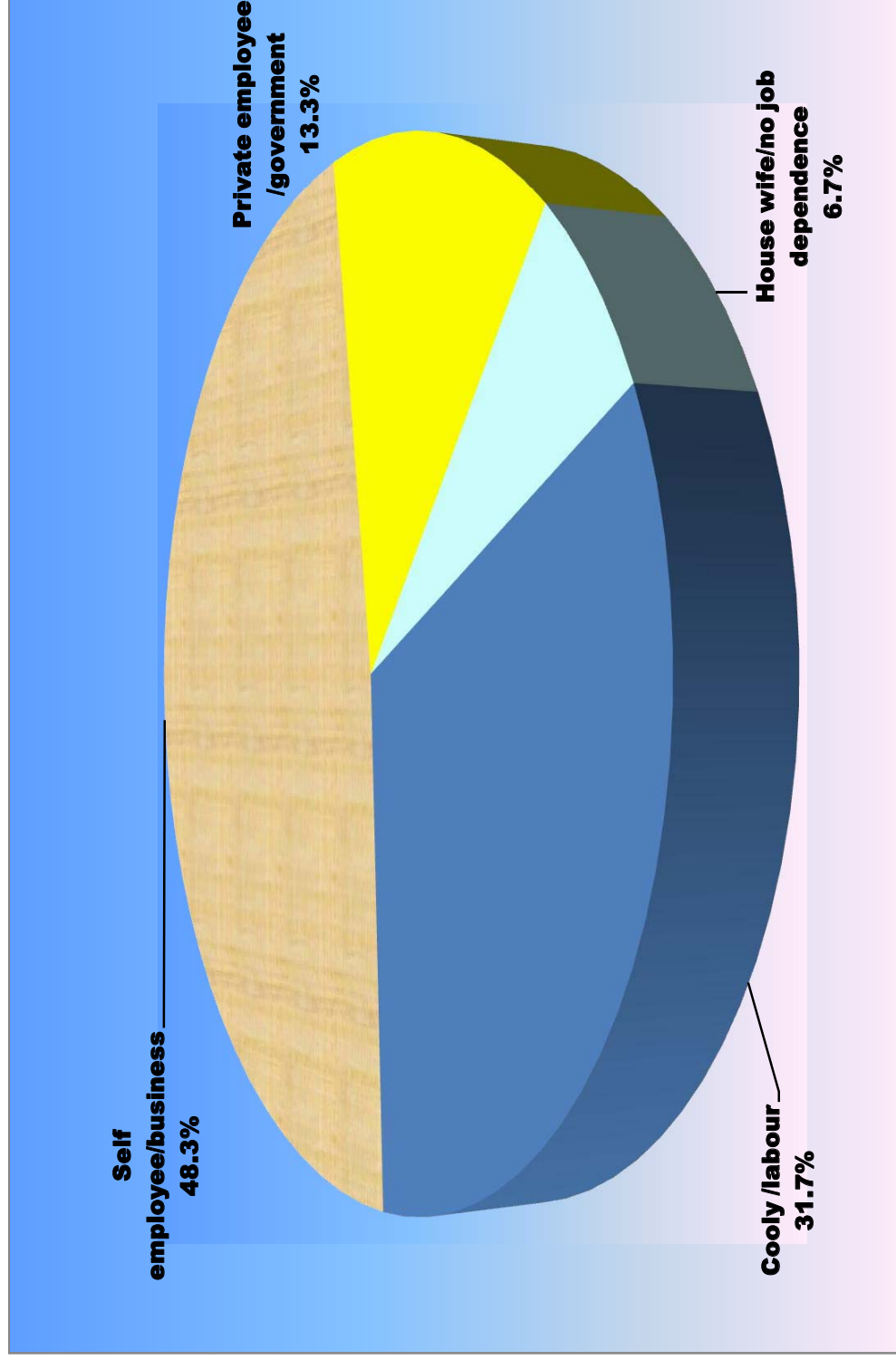
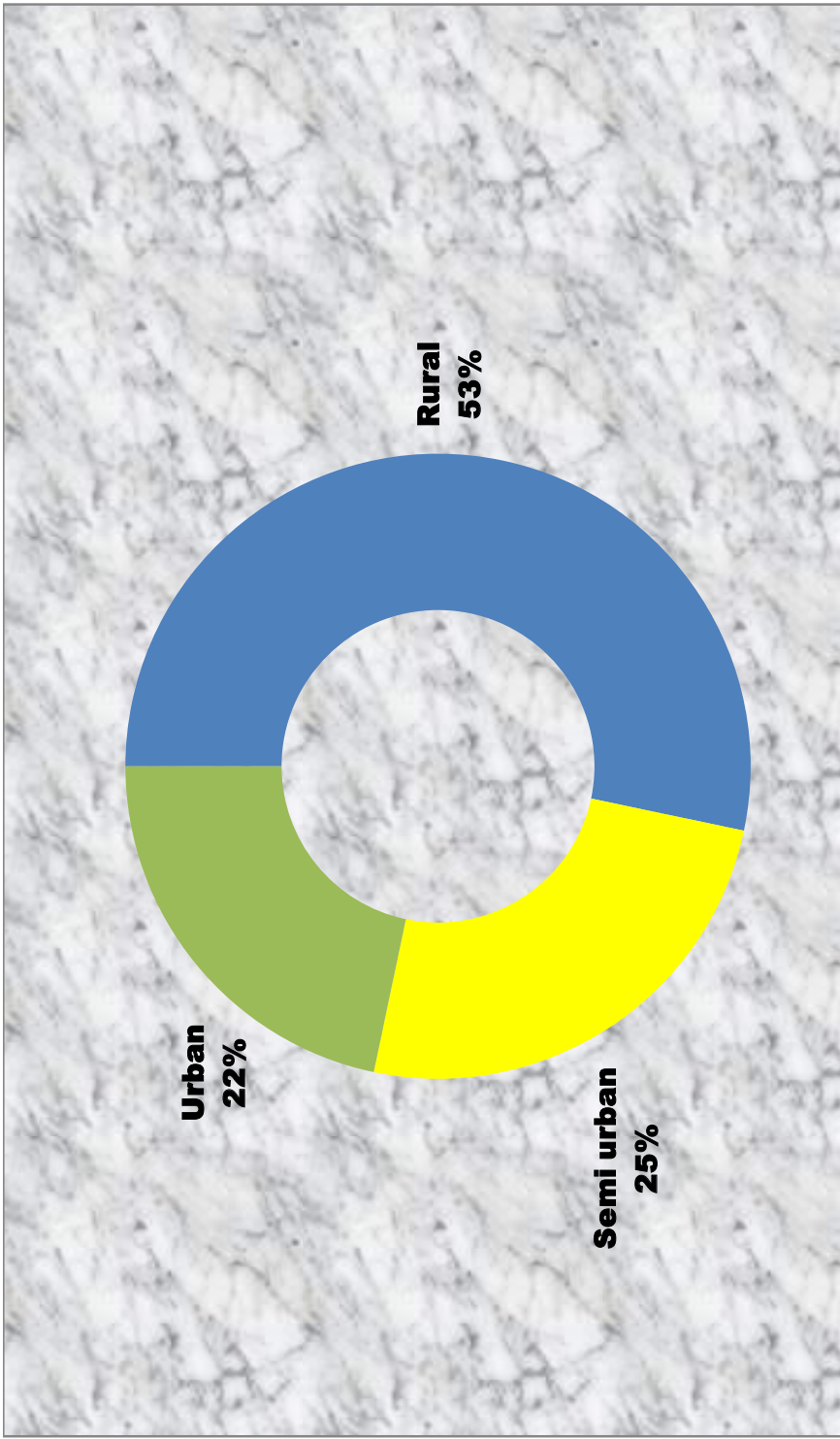
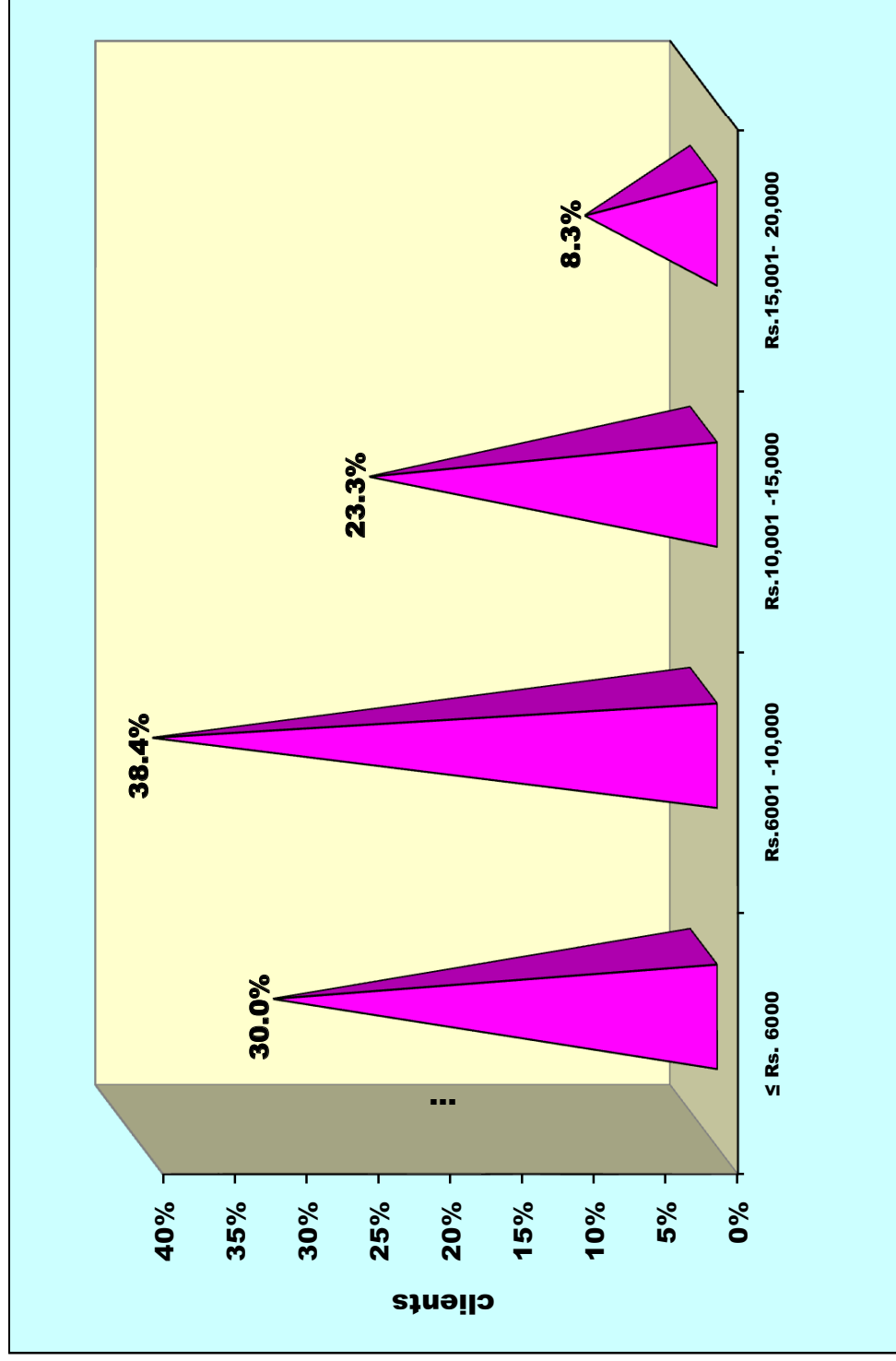


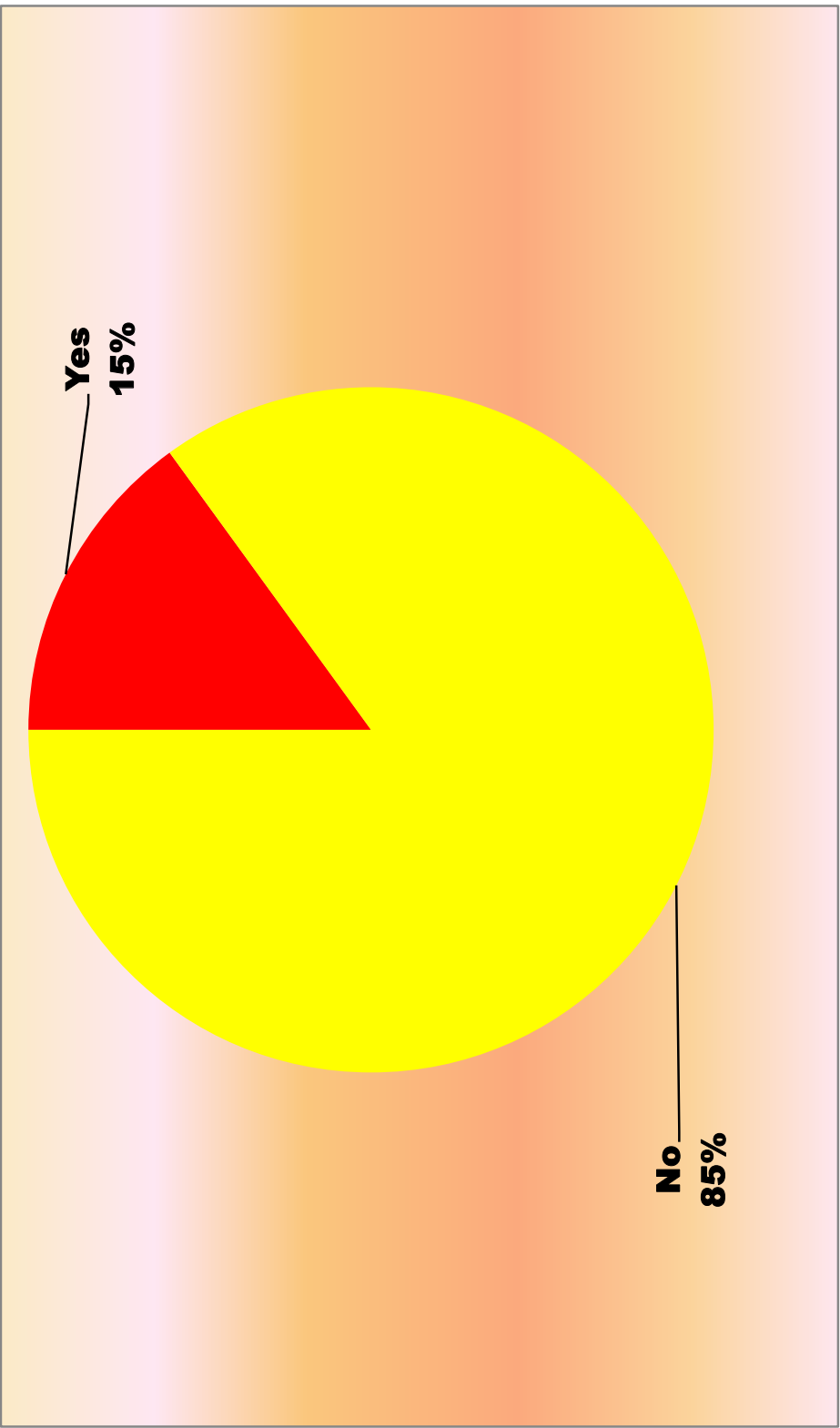
Fig 7 - Occupation Status of The Client



**Fig 8-Place Of Residence Of The Client**



**Fig 9 - Family Monthly Income**



**Fig 10 - Family History of Anxiety Disorder**

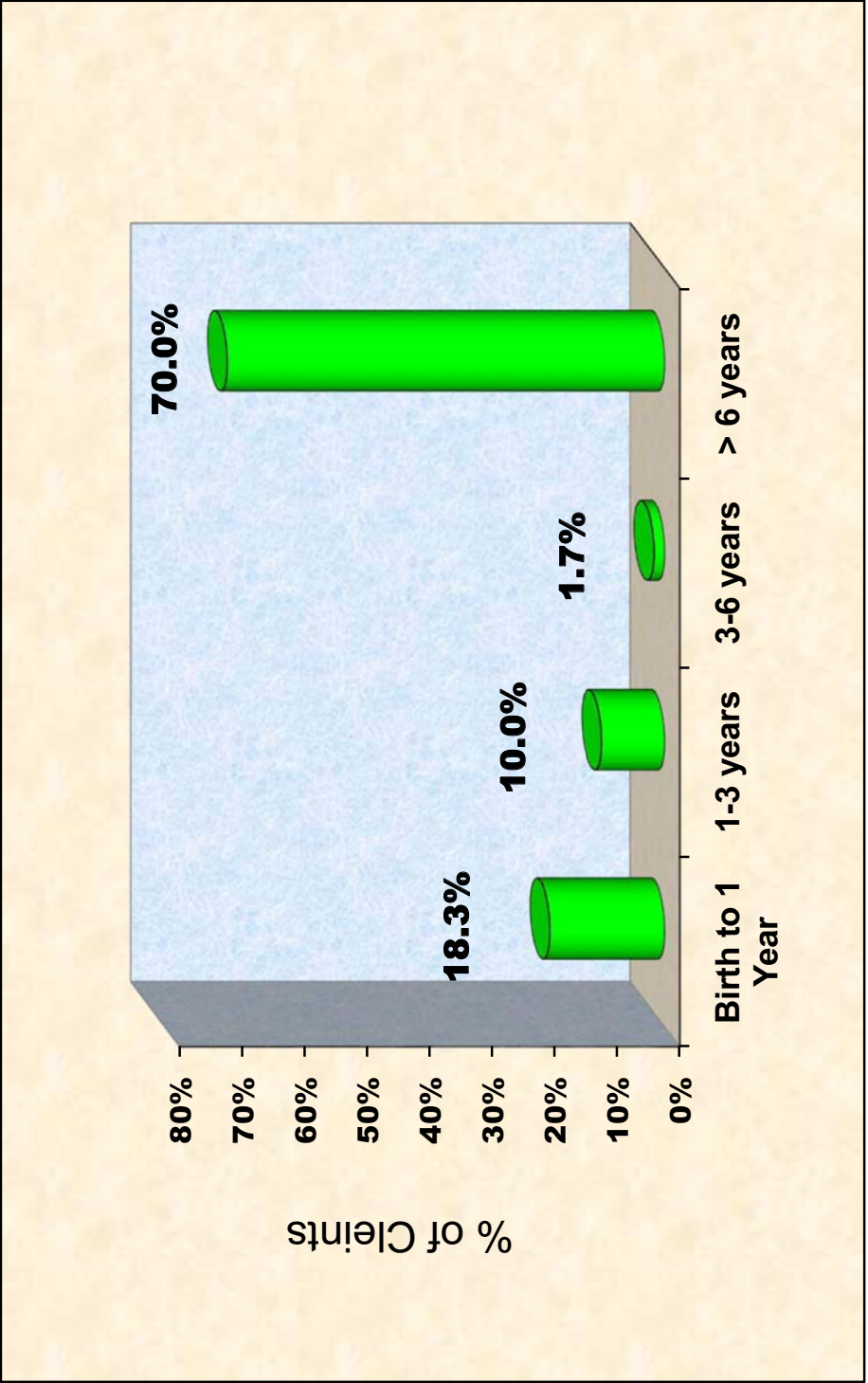


Fig 11 - Anxiety Disorder Detected Age



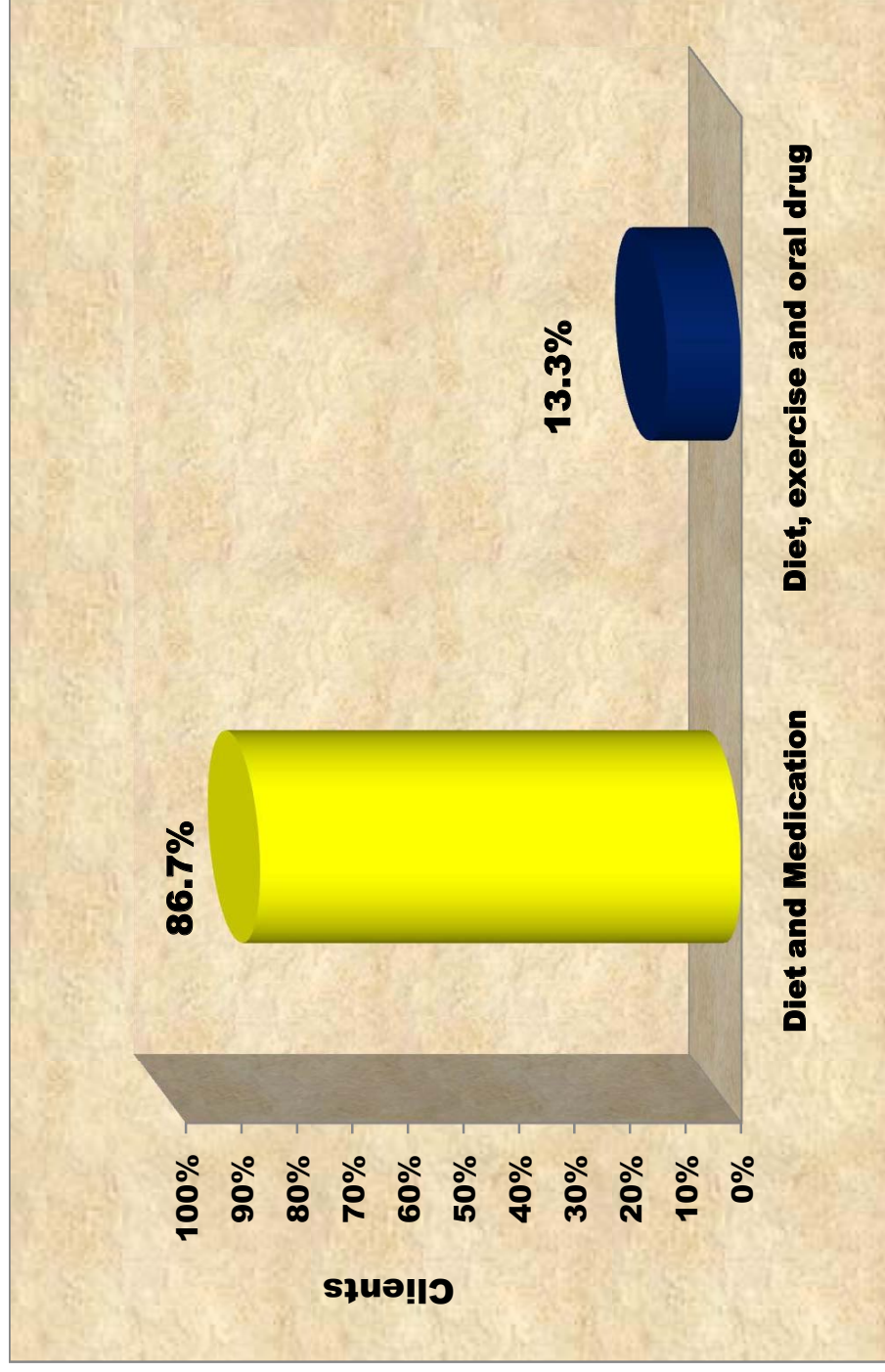
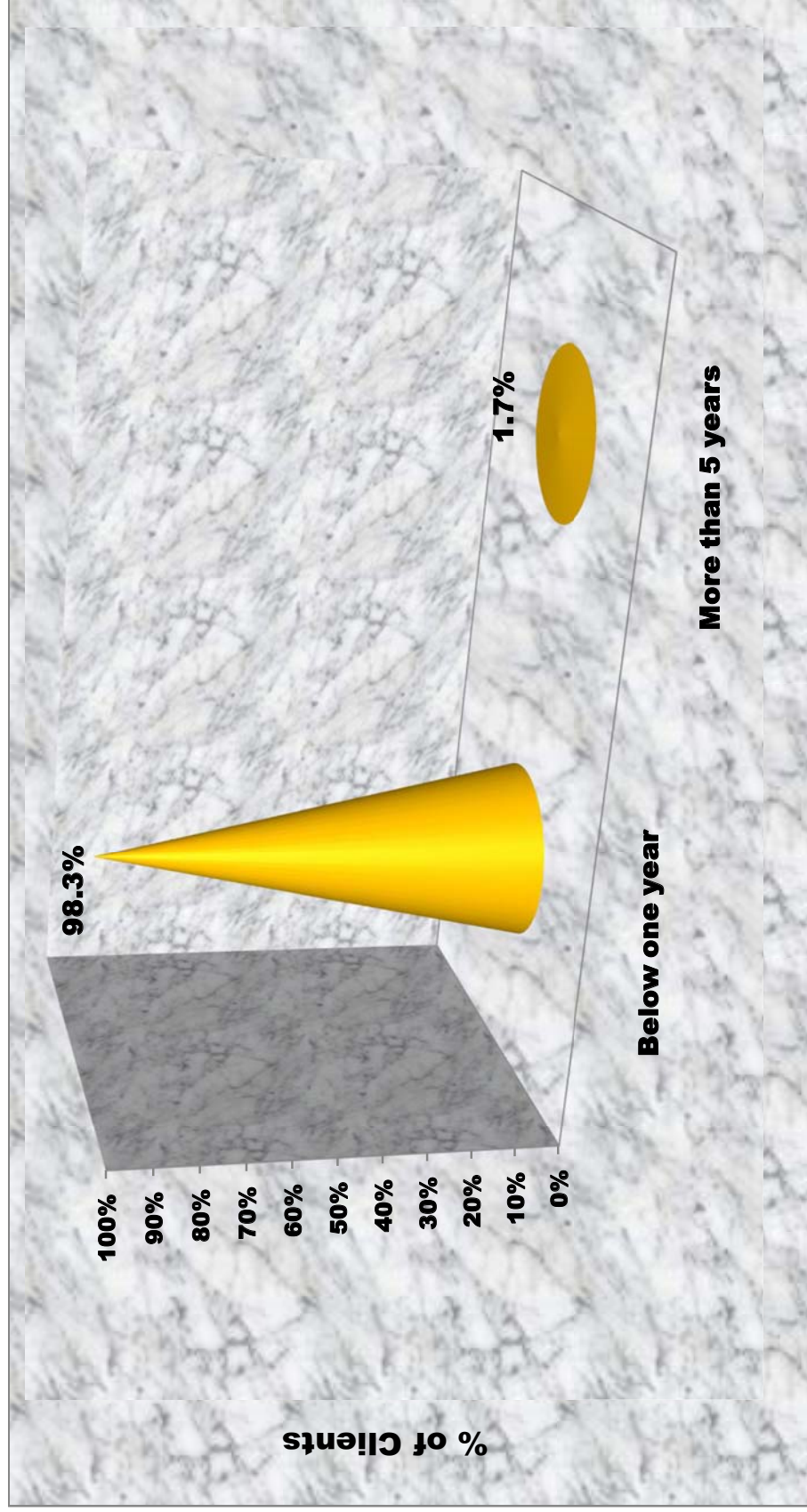
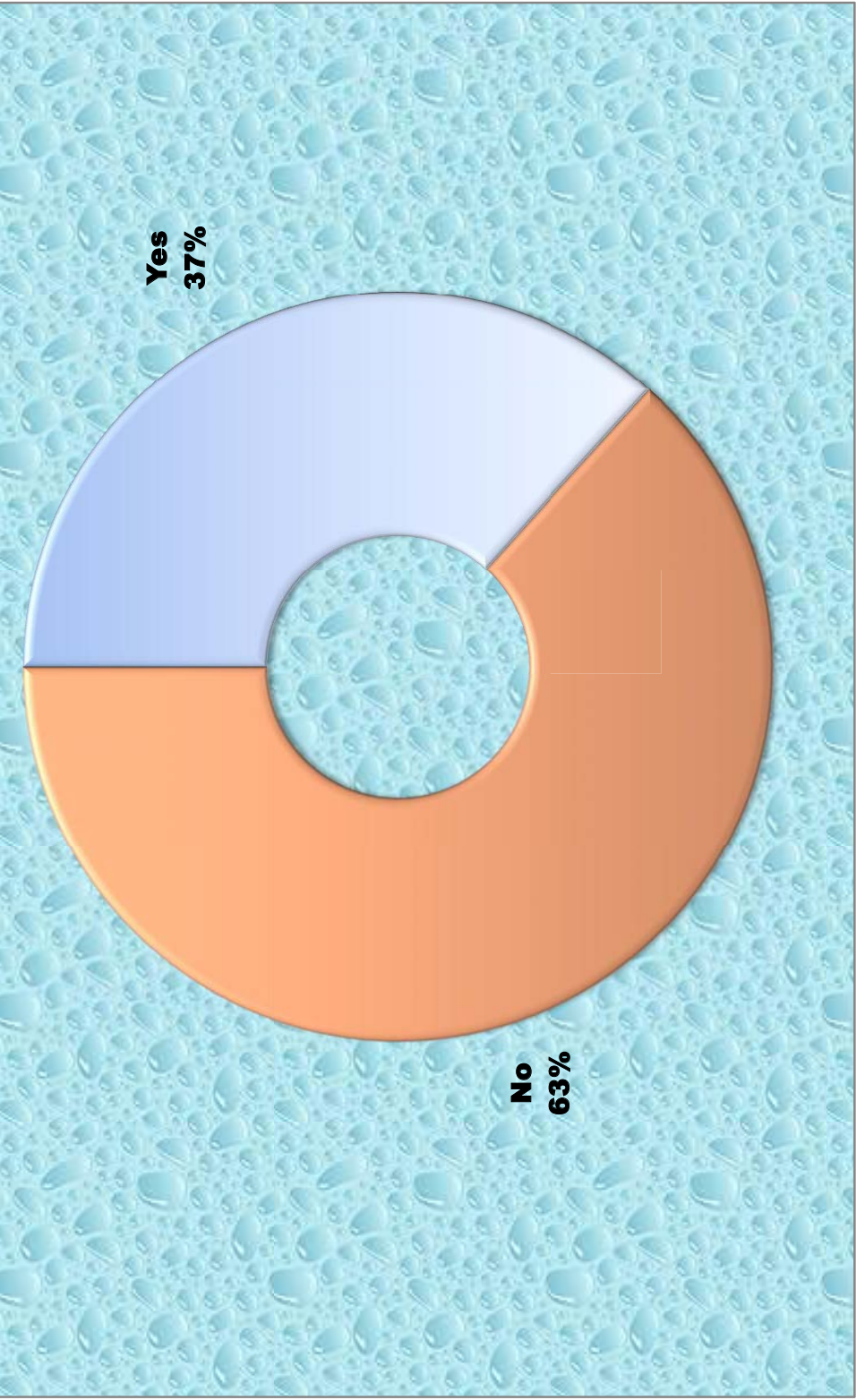


Fig 12 - Recreational Activities



**Fig 13 - Previous Episode of Anxiety Disorder**



**Fig 14 - Knowledge About Relaxation Therapy**

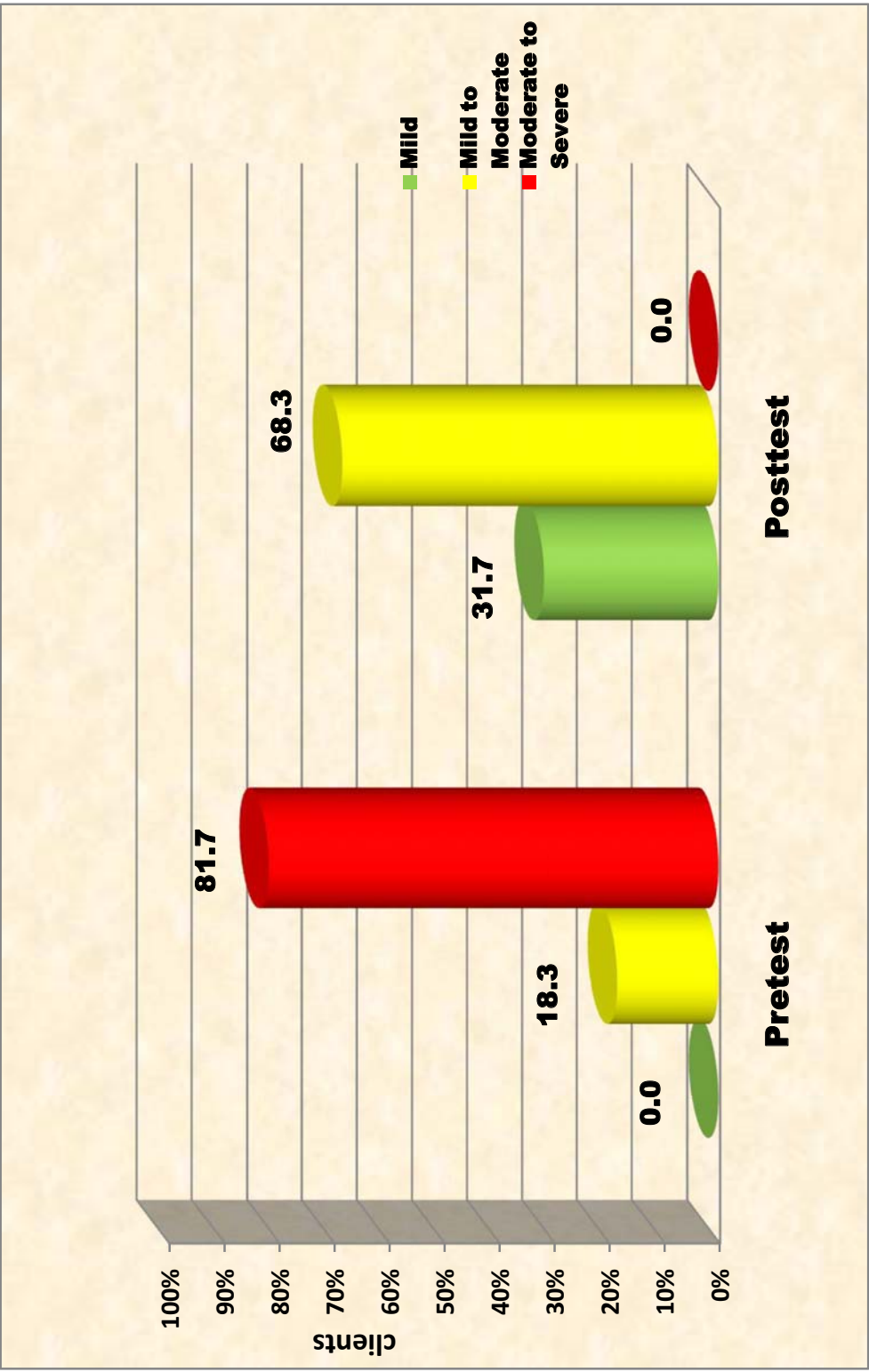
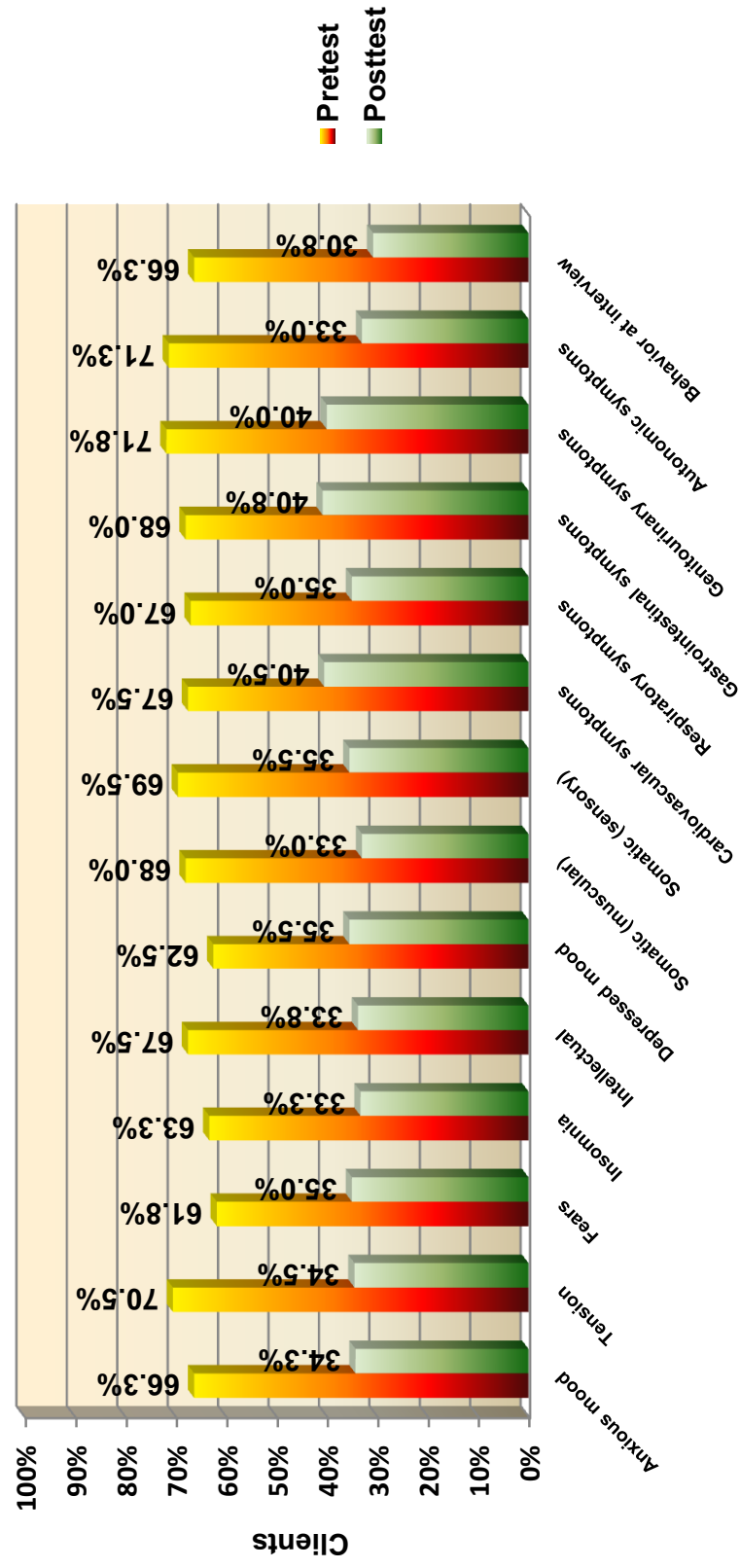
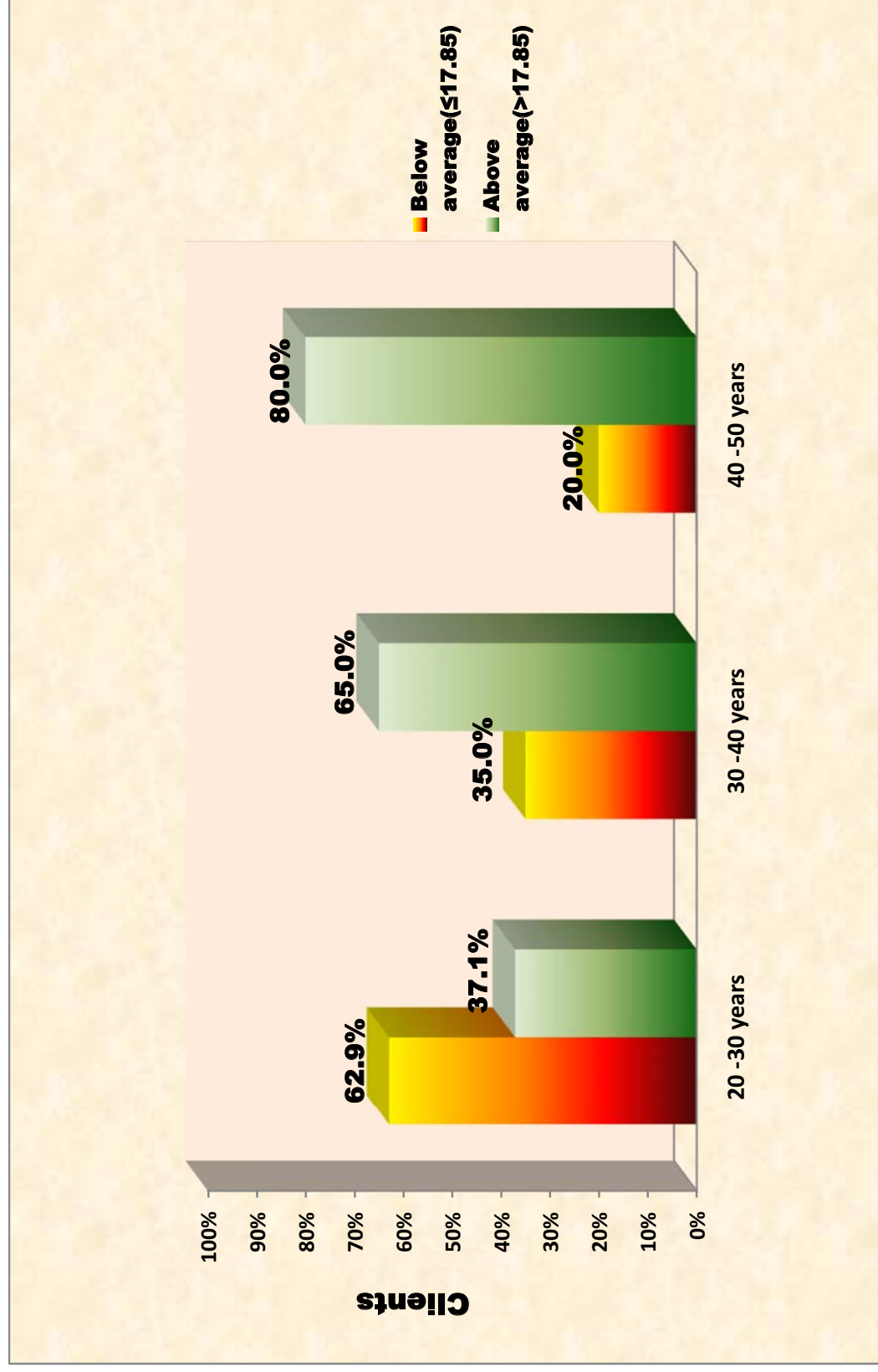


Fig 15 - Pretest And Posttest Level Of Anxiety Score

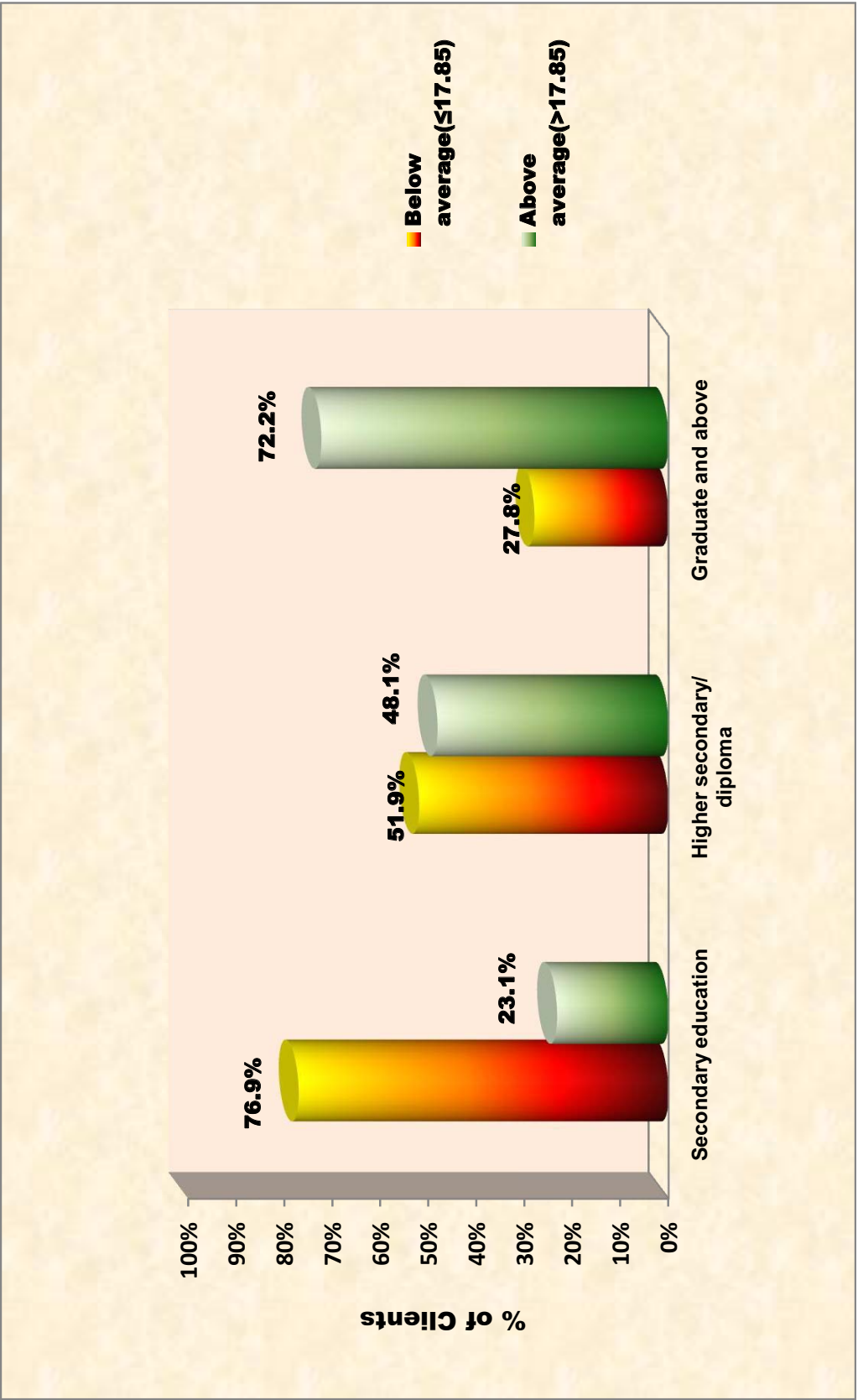




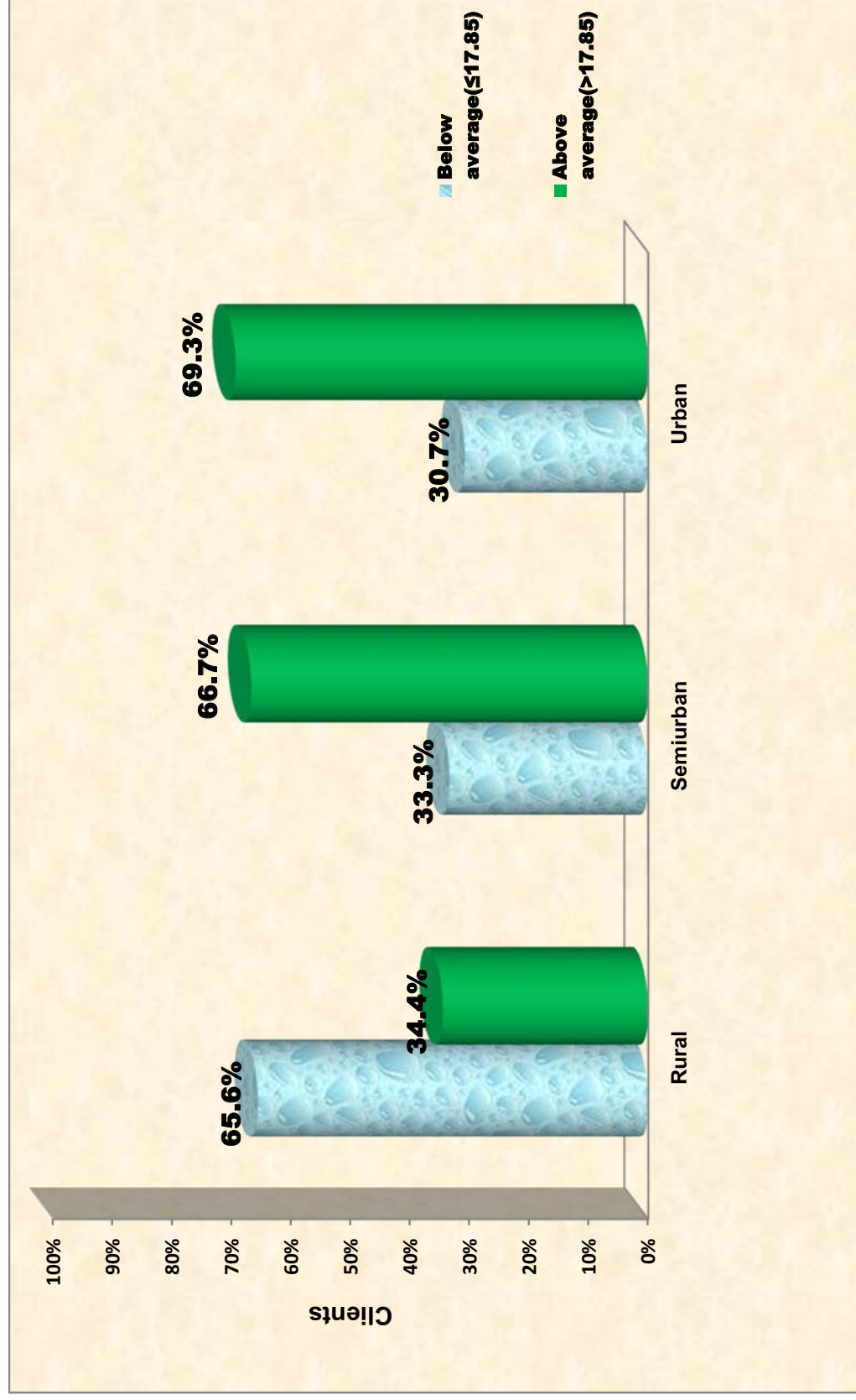
**Fig 17- Domainwise Pretest and Posttest Percentage Of Anxiety Score (Down)**



**Fig 18 - Association between level of anxiety reduction score and patients age**



**Fig 19 - Association Between Level Of Anxiety Reduction Score And Education Status**



**Fig 20 - Association between level of anxiety reduction score and place of residence**



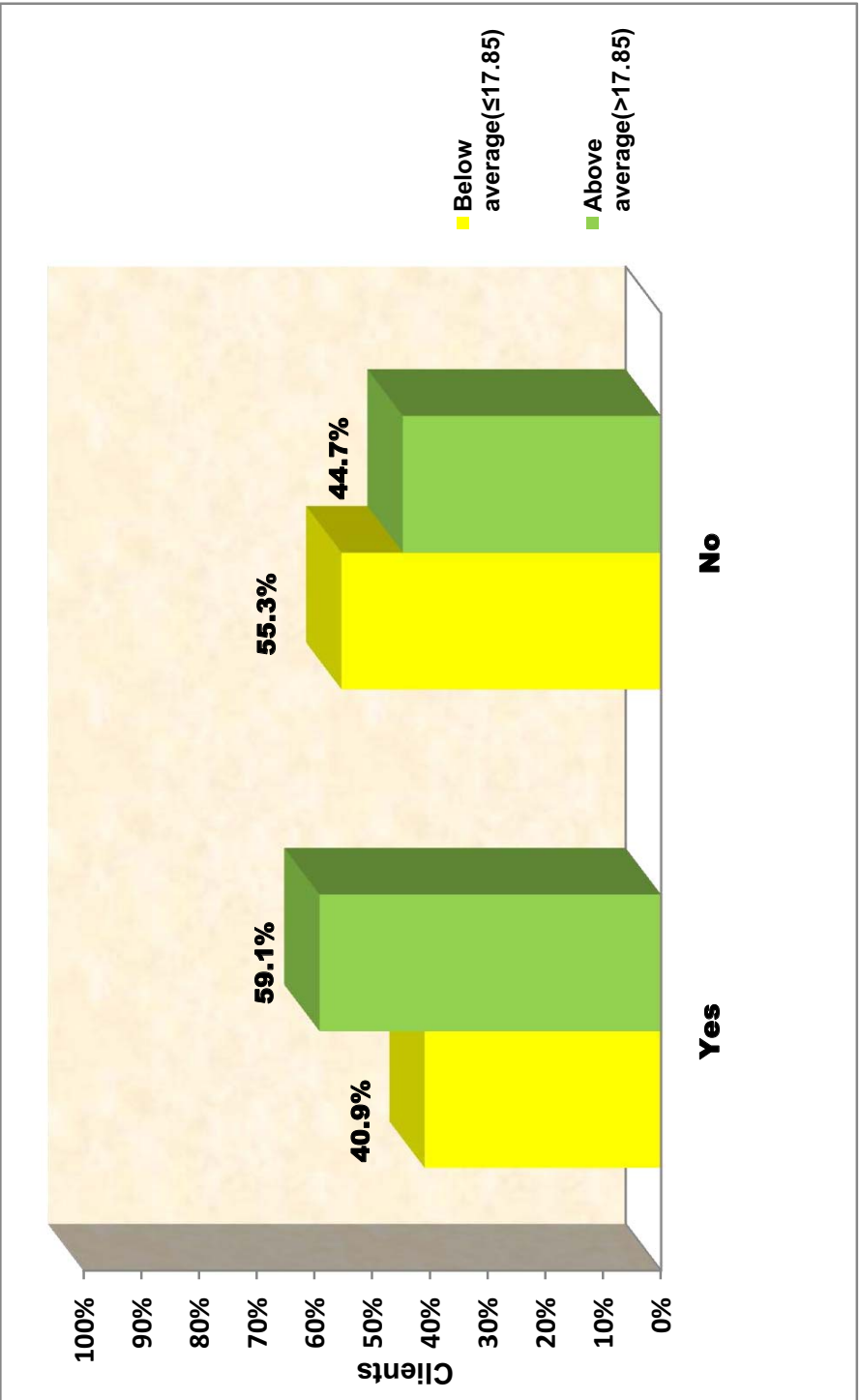
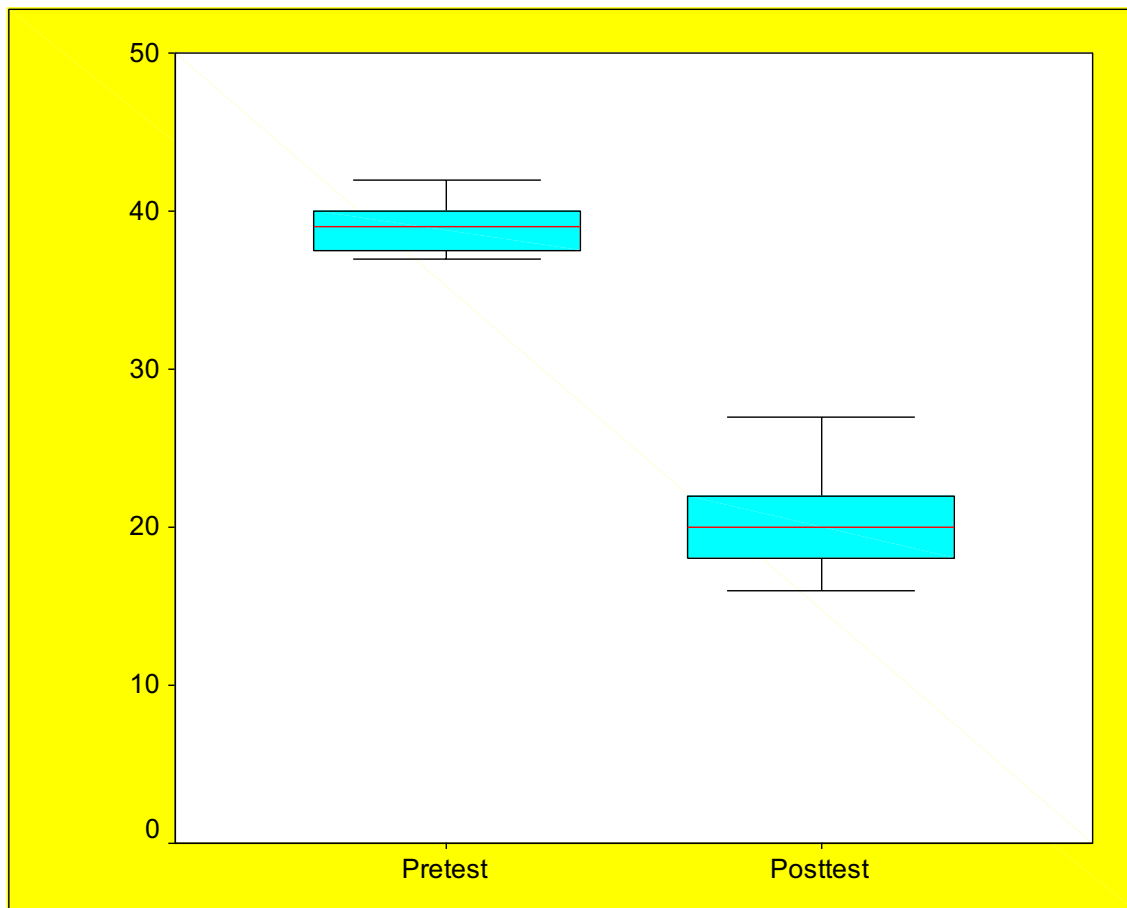


Fig 21- Association Between Level Of Anxiety Reduction Score And Knowledge On Relaxation Therapy



**Fig 16 - Box-plot comparison of pretest and posttest Anxiety score**

Fig 16: Box-plot shows the comparison of pretest and posttest Anxiety score using Jacobson progressive muscle relaxation technique among anxiety disorder clients attending outpatient department at Institute of Mental Health Hospital.

## **CHAPTER V**

### **SUMMARY OF RESULT**

#### **MAJOR FINDINGS OF THE STUDY**

##### **5.1 Findings of socio-demographic data:**

- Among the clients most of them were 35 (58.3%) age group of 20-30 years.
- More than half of them 38 (63.3%) were males.
- Majority of the clients 32 (53.3%) were married.
- Nearly half of them education level studied higher secondary / Diploma 29 (48.3%),.
- More than half of them belongs Hindu religion 33 (55.0%).
- Majority of them occupation business/ self employee 29 (48.3%),.
- Most of them income was 6001- 10,000, 28 (38.3%).
- More than half of resides in rural side 32 (53.3%).
- Majority of them had family history of anxiety disorders Answer “No” 51 (85.0%)
- Highest of the clients when anxiety disorders was detected were >6 years 42 (70.0%).
- More than half of client’s treatment regimen wise diet and medication 52 (86.7%).
- Most of them says that any previous episode of anxiety disorder 59 (98.3%)
- More than half them had knowledge about relaxation therapy was 38 (63.3%).

##### **5.2 Findings on level of pre-test level of anxiety:**

The pre-test level of anxiety among mentally ill clients attending outpatient department was none of the patients are having mild anxiety , 18.3% of them are having mild to moderate anxiety and 81.7% of them are having moderate to severe anxiety

### **5.3 Findings on the post-test level of anxiety among mentally ill clients attending outpatient department after administering Jacobson progressive relaxation technique:**

The pre-test level of anxiety among mentally ill clients attending outpatient department was 31.7% of the patients are having mild anxiety, 68.3% of them are having mild to moderate anxiety and none of them are having moderate to severe anxiety

### **5.4 Findings on effectiveness of administering Jacobson progressive relaxation technique:**

On an average, in posttest, patients are **reduced** 31.9% of anxiety score after implementing **Jacobson progressive muscle relaxation technique**. Differences between pretest and posttest score was analysed using percentage with 95% CI and mean difference with 95% CI.

### **5.5 Findings on the association between level of anxiety reduction score and patients demographic variables.**

The association between level of anxiety reduction and clients attending outpatient department their demographic variables showed elders  $\chi^2=5.93$  more educated  $\chi^2=7.35$ , urban  $\chi^2=6.71$  and previous knowledge of relaxation therapy  $\chi^2=4.59$  patients are reduced more anxiety than others. Statistical significance was calculated using chi square test.

## CHAPTER-VI

### DISCUSSION

The aim of the study was to evaluate the effectiveness of Jacobson Progressive Muscle Relaxation technique among anxiety disorder clients attending outpatient department, Institute of Mental Health at Chennai.

**The study findings are discussed as per the objectives of the study.**

#### **Objective 1 :**

**The first objective of the study describes about the socio-demographic profile of the mentally ill clients with anxiety.**

The demographic information of patients those who participated in the study, age wise most of them were 35 (58.3%) 20-30 years, highest of them were male persons 38 (63.3%), majority of them were married 32 (53.3%), nearly half of them education level studied higher secondary / Diploma 29 (48.3%), more than half of them belongs Hindu religion 33 (55.0%), majority of them occupation business/ self employee 29 (48.3%), most of them income was 6001- 10,000, 28 (38.3%), more than half of resides in rural side 32 (53.3%).

Majority of them had family history of anxiety disorders 51 (85.0%), highest of the clients when anxiety disorders was detected were >6 years 42 (70.0%), regarding treatment regimen wise diet and medication 52 (86.7%), most of them says that any previous episode of anxiety disorder 59 (98.3%), and finally more than half them had knowledge about relaxation therapy was 38 (63.3%).

The above findings were consistent with study the conducted by Febu Elizabeth Joy, Tessy Teresa Jose & Asha K. Nayak (2014) effectiveness of Jacobson's progressive muscle Relaxation (JPMR) technique on social anxiety among High school adolescents in a selected school of Udupi district, Karnataka state, the demographic variables like Out of 193 subjects, majority

(59.1%) of the children were in the age group of 14-15 years. The boys constituted 66.8% of the sample and the girls were only 33.2%. With regard to the birth order there was equal distribution to first and second born i.e. 83(43%), 11(5.7%) were third born, 2 (1%) were fourth born and 14 (7.3%) were only child in the family. Data on type of family show that 173 (89.6%) were from nuclear family, 17 (8.8%) were from joint and only 3(1.6%) were from extended family.

### **Objective 2:**

**The second objective of the study was to assess the pre test level of anxiety before Jacobson progressive muscle relaxation technique therapy intervention.**

This study assessed the percentage of anxiety score before Jacobson progressive muscle relaxation technique therapy intervention, that none of the patients are having mild anxiety , 18.3% of them are having mild to moderate anxiety and 81.7% of them are having moderate to severe anxiety

My study is consistent with study conducted by **M.Ramakrishnan, K.Kalai Chandran**, The Effects of Progressive Muscular Relaxation Exercise among Geriatric Patients with Psychiatric Illness, stress score 1- 17 as a low level of stress. Pre -test score was one and the post-test score was thirteen. These scores indicates the levels but not the number of the subjects. Table-2 reveals that the range from 18- 35 as a medium level of stress. Pre -test score was seventeen and the post-test score was fourteen. Table-3 depicts that the range from 36-52 as a high level of stress. Pre -test score was twelve and the post-test score was four.

### **Objective 3:**

**The Third objective of the study was to assess anxiety level after Jacobson progressive muscle relaxation technique intervention.**

This study assessed percentage of anxiety score after Jacobson progressive muscle relaxation technique therapy intervention, that 31.7% of the patients are having mild anxiety, 68.3% of them are having mild to moderate anxiety and none of them are having moderate to severe anxiety

Similar findings of the study were observed in the study done by, conducted by **M.Ramakrishnan, K. Kalai Chandran**, The Effects of Progressive Muscular Relaxation Exercise among Geriatric Patients with Psychiatric Illness, stress score 1- 17 as a low level of stress. the post-test score was thirteen. These scores indicates the levels but not the number of the subjects. Table-2 reveals that the range from 18- 35 as a medium level of stress. The post-test score was fourteen. Table-3 depicts the range from 36-52 as a high level of stress. The post-test score was four.

#### **Objective 4:**

**The fourth objective of the study was to assess the effectiveness of Jacobson progressive muscle relaxation technique intervention among mentally ill clients with anxiety disorders.**

In this study it reveals that on an average, in posttest, patients had **reduced** 31.9% of anxiety score after implementing **Jacobson progressive muscle relaxation technique**. Differences between pretest and posttest score was analysed using percentage with 95% CI and mean difference with 95% CI.

Similar findings of the study were observed in the study done by, conducted by **M.Ramakrishnan, K. Kalai Chandran**, The Effects of Progressive Muscular Relaxation Exercise among Geriatric Patients with Psychiatric Illness, On the basis of analysis of the results the alternate hypothesis stated that implementing the Jacobsen technique was effective among these patients in their daily life. Pre score of all the tables indicates that the level of stress which range from low to high but not the number of patients in the study. After the intervention, post score of all shows the changes in the level of stress. That means those are having high level of stress can be reduced

to medium level and those are having medium level of stress can be stepped in to low level.

### **Objective 5:**

**The fifth objective of the study was to associate demographic variables with reduction of anxiety among mentally ill clients with anxiety disorders.**

In this study it reveals after Jacobson progressive muscle relaxation technique shows the association between anxiety reduction score and patients demographic variables. Elders  $\chi^2=5.93$  more educated  $\chi^2=7.35$ , urban  $\chi^2=6.71$  and previous knowledge of relaxation therapy  $\chi^2=4.59$  patients had reduced more anxiety than others. Statistical significance was calculated using chi-square test.



## **CHAPTER-VII**

### **Conclusion and recommendation of study**

#### **7.1 Implications of the study**

The findings of the study have implications for nursing education, nursing practice, nursing research and nursing administration.

##### **7.1.1 Implications for nursing practice:**

Along with the changing scenario of health care delivery system, the emphasis is shifted from care oriented approach to complementary alternative method approach. The study revealed that, there is a need of information regarding reduction of anxiety among parents of mentally ill clients.

This study stressed that there is urgent need of education by nursing staff and in planning and conducting educational programme on complementary alternative method is less in cost but the benefit is high.

##### **7.1.2 Implications for nursing administration:**

- The main focus of nursing administration is to organize seminars and workshop and other educational programme for staff nurses and school health nurses as a part of in- service education programme on complementary alternative method since they have direct contact with the clients with anxiety parents who were admitted of attending outpatient department.
- Nursing administrator should take part in the health policy making and developing protocols like new scheme of AYUSH-Complimentary alternative Modalities. Nursing administrators should concentrate on the proper selection, placement, and effective utilization of complementary alternative method because the nurses are care takers.

### **7.1.3 Implications for nursing education:**

- ❖ Nursing education should prepare the nurses for imparting relaxation technique information effectively, efficiently to the stake holders.
- ❖ Students/ nurses must be prepared with relaxation technique methods and it helps to hold the interest on the health of the clients who have anxiety and have attended outpatient department..
- ❖ Nurses at the post graduate level need to develop their skill, in preparing health teaching materials regarding relaxation technique reducing anxiety.
- ❖ The health educational materials especially psycho education module prepared for this study can be utilized by the nursing students in clinical practice and home visits.

### **7.1.4 Implications for nursing research:**

- Since health care system like hospital is place which plays a major role in identifying and preventing impact of anxiety among clients, the research should be focused on the reduction of anxiety of mentally ill clients followed by various teaching programmes.
- Research should be done on practicing newer (AYUSH) complementary alternative method, focusing on interest, quality and cost effectiveness.

### **7.2. Limitation of the Study**

- This study can be done only four week.
- Maintenance of privacy found difficult
- The study can be done at the anxiety disorder clients in out patient department Institute of Mental Health, at Chennai.

### **7.3 Recommendation of further study**

Keeping in view the findings of the present study, the following recommendations are made since the study is carried out on a small convenience sample. The results can be used only as a guide for further studies.

1. The study can be replicated by taking a large sample in other parts of the country.
2. A similar study can be conducted among parents by assessing the problem like behavior or personality changes of the parents.
3. Education can be given to teachers, tutors on complementary alternative method for the clients with anxiety condition.
4. Parents with worsening problems can be referred to the hospitals.
5. Special attention can be given to the clients with anxiety disorder attending outpatient dept.
6. Awareness can be given to parents about complementary alternative method during parents clients meeting at school premises.

### **CONCLUSION:**

These chapters enlightens the importance of this research and reveals that there is a significant reduction of anxiety in mentally ill clients by providing Jacobson Progressive Muscle Relation technique in outpatient department, Institute of Mental Health at Chennai.

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by Edmund J, Bourne

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## APPENDICES

### **INSTITUTIONAL ETHICS COMMITTEE** **MADRAS MEDICAL COLLEGE, CHENNAI-3**

EC Reg No.ECR/270/Inst./TN/2013  
Telephone No. 044 25305301  
Fax : 044 25363970

#### **CERTIFICATE OF APPROVAL**

To  
Mrs. V.BENAZIR  
M.Sc., (Nursing)  
College of Nursing  
Madras Medical College,  
Chennai - 600 003.

Dear Mrs. V.BENAZIR,

The Institutional Ethics Committee has considered your request and approved your study titled **A STUDY TO ASSESS THE EFFECTIVENESS OF JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE AMONG ANXIETY DISORDER CLIENTS ATTENDING OUTPATIENT DEPARTMENT AT INSTITUTE OF MENTAL HEALTH KILPAUK. No.13102014.**

The following members of Ethics Committee were present in the meeting held on 21.10.2014 conducted at Madras Medical College, Chennai-3.

- |   |                      |
|---|----------------------|
| 1. Dr.C.Rajendran, M.D.,  | : Chairperson        |
| 2. Dr.R.Vimala, M.D., Dean, MMC, Ch-3   | : Deputy Chairperson |
| 3. Prof.B.Kalaiselvi, M.D., Vice-Principal, MMC, Ch-3                           | : Member Secretary   |
| 4. Prof.R.Nandhini, M.D., Inst.of Pharmacology, MMC                             | : Member             |
| 5. Prof.K.Ramadevi, Director i/c, Inst.of Biochemistry, MMC                     | : Member             |
| 6. Prof.Saraswathy, M.D., Director, Pathology, MMC, Ch-3                        | : Member             |
| 7. Prof.S.G.Sivachidambaram, M.D., Director i/c, Inst.of Internal Medicine, MMC | : Member             |
| 8. Dr.Raghumani, M.S., Professor of Surgery, MMC                                | : Member             |
| 9. Thiru S.Rameshkumar, Administrative Officer                                  | : Lay Person         |
| 10.Thiru S.Govindasamy, B.A., B.L.,   | : Lawyer             |
| 11.Tmt.Arnold Saulina, M.A., MSW.,  | : Social Scientist   |

We approve the proposal to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study and SAE occurring in the course of the study, any changes in the protocol and patients information/informed consent and asks to be provided a copy of the final report.

  
Member Secretary, Ethics Committee



From

Mrs.V.Benazir,  
M.Sc. (N) II year,  
College of Nursing,  
Madras Medical College,  
Chennai - 600003.

To

The Director,  
Institute of mental health,  
Kilpauk,  
Chennai - 10

Through Proper Channel

Respected Sir,

**Sub: Requesting for permission to conduct a nursing research study-regarding**

I V.Benazir,M.sc Nursing II year, College of Nursing, Madras Medical College, request you to kindly grant me permission to conduct nursing research study on the topic '**A STUDY TO ASSESS THE EFFECTIVENESS OF JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE AMONG ANXIETY DISORDER CLIENTS ATTENDING OUT PATIENT DEPARTMENT AT INSTITUTE OF MENTAL HEALTH, KILPAUK.** As partial fulfilment of dissertation study for the degree of Master of Science in Nursing.

I assure you that it will not interfere with the routine activities of the study settings as well as keep confidentiality and anonymity of each elderly people.

Thanking you

Place: Chennai

Date: 01-07-2015

Yours obediently

V. Benazir  
(V.BENAZIR)

6-7-15

Forward  
proper  
01-07-15

### CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tool constructed by Ms.V.BENAZIR, M.Sc. Nursing II year, College of Nursing, Madras Medical College which is to be used in her study titled "A STUDY TO ASSESS THE EFFECTIVENESS OF Jacobson PROGRESSIVE MUSCLE RELAXATION TECHNIQUE AMONG ANXIETY DISORDER CLIENTS ATTENDING OUTPATIENT DEPARTMENT AT INSTITUTE OF MENTAL HEALTH KILPAUK" has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

  
SENIOR CIVIL SURGEON  
INSTITUTE OF MENTAL HEALTH  
KILPAUK, CHENNAI 10  
SIGNATURE WITH SEAL


NAME : DR. V. Venkatesh Malhan Kumar  
DESIGNATION: Associate professor .  
COLLEGE : Madras Medical college .

PLACE: Chennai

DATE:

### CERTIFICATE FOR CONTENT VALIDITY

This is to certify that the tool constructed by Ms.V.BENAZIR, M.Sc. Nursing II year, College of Nursing, Madras Medical College which is to be used in her study titled "A STUDY TO ASSESS THE EFFECTIVENESS OF Jacobson PROGRESSIVE MUSCLE RELAXATION TECHNIQUE AMONG ANXIETY DISORDER CLIENTS ATTENDING OUTPATIENT DEPARTMENT AT INSTITUTE OF MENTAL HEALTH KILPAUK" has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

  
B. SUDHAKARAN, M.A., M.Phil (Cl.Psy).  
ECI Registration No: A07047  
Assistant Prof. of Psychology cum  
Clinical Psychologist.  
Institute of Mental Health, Chennai-10.

NAME : B. SUDHAKARAN

DESIGNATION: ASST. PROF OF PSYCHOLOGY CUM CLINICAL PSYCHOLOGIST

COLLEGE : INSTITUTE OF MENTAL HEALTH

PLACE: CHENNAI

DATE:

### CERTIFICATE FOR CONTENT VALIDITY

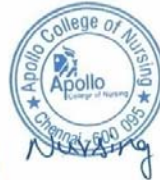
This is to certify that the tool constructed by Ms.V.BENAZIR, M.Sc. Nursing II year, College of Nursing, Madras Medical College which is to be used in her study titled "A STUDY TO ASSESS THE EFFECTIVENESS OF Jacobson PROGRESSIVE MUSCLE RELAXATION TECHNIQUE AMONG ANXIETY DISORDER CLIENTS ATTENDING OUTPATIENT DEPARTMENT AT INSTITUTE OF MENTAL HEALTH KILPAUK" has been validated by the undersigned. The suggestions and modifications given by me will be incorporated by the investigator in concern with their respective guide. Then she can proceed to do the research.

  
SIGNATURE WITH SEAL

NAME : K. Vijayalaxshmi

DESIGNATION: Professor.

COLLEGE : Apollo College of Nursing



PLACE: Chennai.

DATE: 1.08.2015.

## ARIVU PHYSIOTHERAPY CENTER

#104, Arcot Road, (Near Corporation Bank ATM) (Opp. Anna Statue), **PORUR**, Chennai - 600 116.

Cell : 98840 82205, 94446 26506

SINCE 2001

**N.V. PURATCHIRASAN** M.P.T., M.I.A.P.

E.mail : nvprs@yahoo.co.in  
arivuphysio@hotmail.com

Date : 16/07/2015

This is to certify that **Ms. Benazir.V M.sc (II year)** Psychiatric Nursing had undergone an Intensive training programme (part time) in JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE from 01/07/2015 to 15/07/2015.

She is capable and eligible to conduct JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE independently.

  
**N.V. PURATCHIRASAN**  
B.P.T., M.P.T., M.I.A.P.,  
REG. No. L-8788

### TIMINGS

Monday to Saturday Morning : 9.00 A.M. to 1.00 P.M. Evening : 4.00 P.M. to 9.00 P.M.

Sunday : 9.00 A.M. to 1.00 P.M. (Sunday Evening Holiday)

**House Visits Undertaken**

## முன்னேற்றப்பட்ட ஜான்சனின் தசை தளர்வடையும் பயிற்சிகள்

### 1. தேவையான சூழ்நிலை

தசை தளர்வடையும் பயிற்சியானது சத்தங்களினால் மனதினை திருப்ப இயலாது அமைதியான சூழ்நிலையில் நடத்தப்பட வேண்டும். நோயாளியின் உடலை வசதியாக மல்லாந்த நிலையில் படுக்க வேண்டும் .

### 2. இடைவெளி

நோயாளி சோதனை செய்பவர் - பயிற்சியாளரின் உதவியுடன் ஒருமுறையாவது பயிற்சி செய்ய வேண்டும்.

### 3. பொது குறிப்புகள் தசை தளர்வடையும் பயிற்சிகளின் முன்னும் மற்றும் செய்யும் போது.

(இந்த குறிப்புகள் தெளிவாகவும் எளிதாகவும் மிக எளிதில் புரிந்து கொள்ள கூடியதாகவும், எழுதப்பட்டிருக்க வேண்டும். படிக்க தெரியாத நோயாளிகள் தெளிவான அறிவு பெறும்படியாகவும், பயிற்சியின் போது எப்படி ஒத்துழைக்க வேண்டும்.

1. படுக்கையில் படுக்கவும் உடலை தளரவிடவும் மெல்ல சுதந்திரமாக

2. வசதியாக அமைதியாக இருக்கவும்

3. கண்களை மூடிக் கொள்ளவும்

4. மற்ற நினைவுகளை ஒதுக்கவும் அசையாமல் அமைதியாக இருக்கவும்

5. அதிகப்படியான உடலசைவுகளை தவிர்க்க வேண்டும்.

6. பயிற்சியின் ஒரு பதியாக தசையை சுற்றி அழுத்தி பிடித்து மேலும் 5 நொடி தாமதித்து தளரவிடவும் (1001,1002,1003 அமைதியாக சொல்லவும்).

7.தளர்வடையும் பயிற்சி சுற்றின் போது தசைகளை விரைவாக தளர்த்தி மேலும் மனதை முழுவதுமாக தளர்ச்சி எப்படி தசை தளர்கிறது என்பதை உணர வேண்டும்.

8. மற்ற எல்லா தசைகளையும் தளர்வடையும் செய்ய வேண்டும்.

9. குறிப்பிட்ட கூட்ட தசைகளை பயிற்சி செய்யும் போது தலையிலிருந்து கால்வரை பயிற்சி செய்யும் போது மாற்றங்கள் அதாவது அழுத்தம் லேசான மற்றும் இதமான உணர்வுகள் ஏற்படுகின்றதா என்பதை கவனிக்க வேண்டும்.

10.தளர்வாக மூன்று ஆழ்ந்த மூச்சுக்களை எடுத்து மூக்கின் வழியாக உள்ளிழுத்து வாயின் வழியாக வெளியேற்ற வேண்டும். ஒவ்வொரு முறையும் 30 நொடிகள் தளர்வாக 1 வினாடிக்கு ஒரு முறை செய்ய வேண்டும்.

11. இப்போழுது உங்கள் உடல் முழுவதும் தளர்வாக மெல்ல சுதந்திரமாக

12. இப்போழுது உங்கள் பயிற்சியை தொடங்கலாம்.

### பயிற்சிக்குப்பின்

#### 1. முகத்தசைகள்

- ❖ கண்களை இருக்கி மூடி, நெற்றியை சுருக்கி, முகத்தசைகளை சுருக்கவும்.
- ❖ பற்களை கடிக்கவும்
- ❖ உதடுகளை பரிஸ் போல செய்யவும்
- ❖ நாவை அண்ணாக்கின் மேல் தூக்கவும்
- ❖ முழுவதுமாக தளர்த்தவும்

#### 2.கழுத்து மற்றும் தோள

- ❖ முதலில் பின்புறமாக வளைத்து, பின்பு முன்புறமாக வளைத்து தாடையை தொடும்படி செய்யவும்.
- ❖ தோளை இருக்கி பிடித்து மேலும் கீழுமாக சுருக்கவும்
- ❖ முழுவதுமாக தளரவிடவும்

#### 3. மார்பு தசை

- ❖ நீள மூச்சு எடுத்து இருக்கி பிடிக்கவும் 5-7 நொடிகள் பிடிக்கவும்.

#### 4. கைகள்

- ❖ இரண்டு கைகளையும் தனித்தனியாக இறுக்கி பிடிக்கவும்
- ❖ உள்ளங்கைகளை இறுக்கவும்
- ❖ முழுவதுமாக தளரச்செய்யவும்

#### 5. முழங்கைகள்

- ❖ உள்ளங்கையை இறுக்கி பிடித்து முழங்கைவரை மடக்கவும்
- ❖ மறுகையிலும் இதேபோல் செய்யவும்

#### 6. கையில் மேற்பகுதி

- ❖ வலது கையை நீட்டி பின்னர் தளரவும்
- ❖ இடது கையிலும் அதேபோல் செய்யவும்
- ❖ முழுவதுமாக தளரவும்



❖ இ. கனிசமான அளவு 2 ஈ.  
அதிகமான 3



❖	இ. கனிசமான	அளவு	2	ந.
	அதிகமான	3		



❖ அ. இல்லை 0 ஆ.  
சிறிதளவு 1

❖ உ. மிக அதிகமாக 4



❖ இ. கணிசமான அளவு 2 ஈ.  
அதிகமான 3

❖ 5. உங்களுக்கு கவனக்குறைவு ஞாபக மறதி போன்ற தொந்தரவுகள் இருக்கிறதா?

❖ இ. கனிசமான அளவு 2  
அதிகமான 3

❖ உ. மிக அதிகமாக 4



❖

❖ 6. உங்களுக்கு மன அழுத்தம் எதிலும் ஆர்வமின்மை அதிகாலையில் தூக்கமின்றி எழும்புதல் போன்ற பிரச்சனைகள்

❖ அ. இல்லை 0 ஆ.  
சிறிதளவு 1

❖ இ. கனிசமான அளவு 2 ஈ.  
அதிகமான 3

❖ உ. மிக அதிகமாக 4

❖ 7. உங்களுக்கு உடல்வலி தசைப்பிடிப்பு தசை இறுகுதல் குரல் பிறகுதல், பல்கடித்தல் போன்ற பிரச்சனைகள் இருக்கிறதா?

❖ அ. இல்லை 0 ஆ.  
சிறிதளவு 1

❖ இ. கனிசமான அளவு 2 ஈ.  
அதிகமான 3

❖ உ. மிக அதிகமாக 4

❖

❖ 8. உங்களுக்கு பார்வை கோளாறு உடல் அதிக சுடாதல் அல்லது குளிர்ந்தல் உடல் சோர்வடைதல், போன்ற பிரச்சனைகள் இருக்கிறதா?

❖ அ. இல்லை 0 ஆ.  
சிறிதளவு 1

❖ இ. கனிசமான அளவு 2 ஈ.  
அதிகமான 3

❖ உ. மிக அதிகமாக 4

❖ 9. உங்களுக்கு இதயத் துடிப்பு கோளாறு மிகுதியான நெஞ்சு துடிப்பு, நெஞ்சு வலி, மயக்கம், இதயத்துடிப்பு இல்லாதது போன்ற பிரச்சனைகள் இருக்கிறதா?

❖

❖ அ. இல்லை 0 ஆ.  
சிறிதளவு 1

❖ இ. கனிசமான அளவு 2 ஈ.  
அதிகமான 3

❖ உ. மிக அதிகமாக 4

❖

❖ 10. உங்களுக்கு நெஞ்சு அழுத்தம் முச்சு விடுதலில் சிரமம் போன்ற பிரச்சனைகள் இருக்கிறதா?

❖ அ. இல்லை 0 ஆ.  
சிறிதளவு 1

❖ இ. கனிசமான அளவு 2 ஈ.  
அதிகமான 3

❖ உ. மிக அதிகமாக 4

- ❖ 11. உங்களுக்கு வயிற்றுவலி வாந்தி வாந்தி வரும் உணர்வு எடை குறைதல் மலச்சிக்கல் போன்ற பிரச்சனைகள் இருக்கிறதா?
- ❖ அ. இல்லை 0 ஆ. சிறிதளவு 1
- ❖ இ. கனிசமான அளவு 2 ஈ. அதிகமான 3
- ❖ உ. மிக அதிகமாக 4
- ❖
- ❖ 12. உங்களுக்கு சிறுநீர் கழிப்பதில் பிரச்சனை , வெள்ளைப்படுதல், மூாத விலக்கில் பிரச்சனை உள்ளதா?
- ❖ அ. இல்லை 0 ஆ. சிறிதளவு 1
- ❖ இ. கனிசமான அளவு 2 ஈ. அதிகமான 3
- ❖ உ. மிக அதிகமாக 4
- ❖
- ❖ 13. உங்களுக்கு நாக்கு வறண்டு போத் வியர்த்தல் தலைச்சுற்றல் தலைவலி போன்ற பிரச்சனைகள் இருக்கிறதா?
- ❖
- ❖ அ. இல்லை 0 ஆ. சிறிதளவு 1
- ❖ இ. கனிசமான அளவு 2 ஈ. அதிகமான 3
- ❖ உ. மிக அதிகமாக 4
- ❖
- ❖ 14. உங்களுக்கு நேர்முக தேர்வின் போது மன பதட்டம், கை நடுக்கம், அதிகமான முச்சி வாங்குதல், எச்சில் முழுங்குவது .
- ❖ அ. இல்லை 0 ஆ. சிறிதளவு 1
- ❖ இ. கனிசமான அளவு 2 ஈ. அதிகமான 3
- ❖ உ. மிக அதிகமாக 4
- ❖

## DEMOGRAPHIC DATA

### 1.Age

- a. 20 – 30
- b.30 -40
- c.40-50
- d.50 and above.

### 2. Sex

- a.Male
- b.Female

### 3.Marital status

- a.married
- b.unmarried
- c.widower
- d.separated./divorce

### 4.Education

- a.primary school.
- b.secondary education
- c.higher secondary/ diploma
- d.graduate and above.

### 5.Religion

- a.Hindu
- b.christian
- c.muslim
- d.others.

6.Occupation

- a.cooly /labour
- b.self employee/business
- c.private employee /government.
- d.house wife/no job dependence.

7. Income per month in rupees

- a.6000
- b.6001 -10,000
- c.10,001 -15,000
- d.15,001-20,000

8.Residence community area

- a.Rural
- b.semiurban
- c.urban

9.any family history of anxiety disorders.

- a.yes

b.No

10. when anxiety disorders was detected.

a.Borth to 1 Year

b.1-3 years

c.3-6 years

d.above 6 years.

11.Treatment regimen

a.diet and Medication

b.diet, exercise and oral drug

c.diet

12.any previous episode of anxiety disorder

a.yes

b.no

13.knowledge about relaxation therapy

a.yes

b.no

**தன்விவரக்குறிப்ப**

மாதிரி எண்.

1. வயது

அ. 22-30

ஆ. 30-40

இ. 40-50

ஈ. 50க்கு மேல்

2. இனம்

அ. ஆண்

ஆ. பெண்

3. திருமணம்

அ. திருமணமானவர்

ஆ. திருமணம் ஆகாதவர்

இ. துணையை இழந்தவர்

ஈ. பிரிந்து வாழ்பவர்.

4. கல்வித்தகுதி

அ.1 முதல் 5-ம் வகுப்பு வரை

ஆ.6 முதல் 10-ம் வகுப்பு வரை

இ. 11 முதல் 12ம் வகுப்பு, பட்டயபடிப்பு

ஈ. பட்டப்படிப்பு அதற்கு மேல்

5. மதம்

அ. இந்து

ஆ. கிறிஸ்துவம்

இ. இஸ்லாமியம்

ஈ. மற்றவர்

6. வேலை

அ. கூலித்தொழிலாளி

ஆ. சுயதொழிலாளி / வியாபாரம்

இ. தனியார் / அரசு பணி

ஈ. குடும்ப நிர்வாக / வேலையில்லாமை / சார்ந்து வாழ்தல்

7. மாத வருமானம் ரூபாயில்

அ. 6000

ஆ. 6001-10000

இ. 10001-15000

ஈ. 15001-20000

8. சமூக வசிப்பிடம்

அ. கிராமம்

ஆ. சிறுநகரம்

இ. நகரம்

9. குடும்பத்தில் யாருக்காவது மனப்பதட்ட நோய் உள்ளதா?

அ. ஆம்

ஆ. இல்லை

10. மனப்பதட்ட நோய் உங்களுக்கு எப்பொழுது கண்டறியப்பட்டது?

அ. பிறந்தது முதல் 1 வருடம்

ஆ. 1 முதல் 3 வயது

இ. 3 முதல் 6 வயது

ஈ. 6 வயதிற்கு மேல்

11. வைத்தியமுறைப்பிரிவு

அ. உணவு மற்றும் மாத்திரை

ஆ. உணவு, உடற்பயிற்சி மற்றும் மாத்திரை

இ. உணவு

12. இதற்கு முன்பு உங்களுக்கு மனப்பதட்ட நோய் வந்துள்ளதா?

அ. ஆம்

ஆ. இல்லை

13. உடற்தளர்ச்சி பயிற்சி பற்றி உங்களுக்கு முன் அனுபவம் உண்டா?

அ. ஆம்

ஆ. இல்லை

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ஆராய்ச்சி தகவல் தாள்

ஆராய்ச்சி தலைப்பு

மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்துவதினால் ஏற்படும் மனப்பதட்ட மாற்றத்தை கண்டறிவதற்கான ஆய்வு.

ஆய்வாளர் பெயர் : வி. பெனாசிர்

பங்கேற்பாளர் பெயர் :

தேதி :



வயது / பால்

ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சம்மதிக்கலாம். இதில் பங்கேற்பதன் நோக்கம். இந்த ஆராய்ச்சியில் தகவல்களை தெரிந்து கொள்வதற்காகவும், அதனை பயன்படுத்துவதற்காக மட்டும் தான்.

இந்த ஆராய்ச்சியின் நோக்கம், மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்துவதினால் ஏற்படும் மனப்பதட்ட மாற்றத்தை கண்டறிவதற்கான ஆய்வு.

**ஆராய்ச்சி மேற்கொள்ளும் முறை**

இந்த ஆராய்ச்சியில் மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை கற்று தருவதற்கு முன்பு மற்றும் பின்பு பயன்படுத்துவதினால் அவர்களுடைய மனப்பதட்டம் குறைவதை அறியலாம்.

**இதனால் ஆய்வாளருக்கான பயன்**

இந்த ஆய்விற்குப்பின் மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை கற்றுதந்ததன் தாக்கத்தினை அறியலாம்.

**இதனால் பங்கேற்பாளருக்கான பயன்**

இந்த ஆய்வு இருக்கும் மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்துவதினால் அவர்களுடைய மனப்பதட்டம் குறைகிறது.

ஆராய்ச்சியில் பங்கேற்கவில்லை என்றாலும், உங்களின் சராசரி வாழ்க்கை முறையில் எந்தவித மாற்றமும் ஏற்படாது என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் பங்கேற்க விருப்பம் இல்லை என்றால் உங்களின் முழுமனதுடன் நீங்கள் இந்த ஆராய்ச்சியில் இருந்து விலகி கொள்ளலாம் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் உங்களின் தகவல்களை பாதுகாப்பாக வைத்துக்கொள்கிறேன் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிடும்போது, உங்களை பற்றிய அடையாளங்கள் வெளிவராது என்பதை உறுதி கூறுகிறேன்.

ஆய்வாளர் கையொப்பம்.  
கையொப்பம்.

பங்கேற்பாளர்

தேதி

தேதி

# **JACOBSON MUSCLE RELAXATION TECHNIQUE**

## **RELAXATION EXERCISE**

### **1 .Conductive environment**

The setting for relaxation is quiet and of distraction noises. The patient Will be kept physically comfortable in a position.

### **2.FREQUENCY**

The patient will be assisted to perform muscle relaxation exercises once with the investigator.

### **3. General instruction before an during muscle relaxation exercise.**

This instruction is kept simple and is easily understood by literate Patients and gives them a clear picture of how to co-operate during the exercise regimen.

- 1 .Lie down on the bed as comfortable as possible .Keep your body loose ..... light.....and free.
- 2 Be calm and comfortable.
- 3 Keep your eye closed.
- 4 Avoid stray thoughts.
- 5 Avoid extra movements of the body.
- 6 During the part of the exercise cycle tens the muscle tightly and hold for slow count of 7 seconds. ( Repeat silently 1001,1002,1003,)
- 7 Repeat each exercise 3 times .
- 8 During the relation part of exercise cycle relax the muscle quickly and completely . let your mind relax and appreciate how relaxed the muscle is feeling.
- 9 Try to keep all other muscles relaxed as you exercise specific muscle group.
- 10 As you exercise from head to toe..... Observe changes like tightness and the development of light and soothing sensations
- 11 Relax by taking three deep breaths inhaling trough nose and exhaling through mouth after each step .
- 12 Now make your body completely loose.....light.....and free
- 13 Let us being your exercise.

## **PROCEEDURE**

## **1. Facial Muscles**

- a. Tense muscle of the face by wrinkling your forehead frowning and squint the eyes.
- b. Clench your teeth.
- c. purse your lips
- d. Push tongue to the roof of your mouth.
- e. lift your eyebrows with yours eyes still closed.
- f. Relax completely.

## **2. Neck & shoulder**

- a. Bend head backward and forward so chin touches chest.
- b. Tens shoulder by tightening and shrinking shoulders.
- c. Relax complete

## **3. Chest**

Tense chest muscle by taking a deep breath and hold it for 5-7 seconds.

## **4. Hands.**

- a. clench each fist separately and feel the tension.
- b. clench both fist together.
- c. Relax completely.

## **5. Lower Arms**

- a. Make a fist and bend arms up at the elbow with your right arm, then repeat with your left arm.
- b. Relax completely.

## **6. Upper Arms.**

- a. Make a fist and bend arms at the elbow with your right arm, then repeat with your left arms.
- b. repeat with left arms.
- c. relax completely.

## **7. Back.**

- a. Arch your back.
- b. Relax completely

## **8. Abdomen**

- a. Tense abdomen by drawing in muscles, relax completely.

## **9. Thighs & Buttocks**

- a. Tens both thigh muscles and buttocks by squeezing muscles together.
- b. relax completely.

## **10 Lower Legs**

- a. Point toes towards your head then away from your head .
- b. Relax completely.

## **11. Toes**

- a. Curl toes up.
- b. Relax completely.

.

## **After Exercises**

- a. Relax whole body completely.
- b. Keep your eyes closed for about 2 minutes and let yourself remain in the relax position.
- c .Open your eyes and enjoy renewed energy, feel relaxed and refreshed.
- d .sit up, stretch, and stand up slowly

## முன்னேற்றப்பட்ட ஜான்சனின் தசை தளர்வடையும் பயிற்சிகள்

### 1. தேவையான சூழ்நிலை

தசை தளர்வடையும் பயிற்சியானது சத்தங்களினால் மனதினை திருப்ப இயலாது அமைதியான சூழ்நிலையில் நடத்தப்பட வேண்டும். நோயாளியின் உடலை வசதியாக மல்லாந்த நிலையில் படுக்க வேண்டும் .

### 2. இடைவெளி

நோயாளி சோதனை செய்பவர் - பயிற்சியாளரின் உதவியுடன் ஒருமுறையாவது பயிற்சி செய்ய வேண்டும்.

### 3. பொது குறிப்புகள் தசை தளர்வடையும் பயிற்சிகளின் முன்னும் மற்றும் செய்யும் போது.

(இந்த குறிப்புகள் தெளிவாகவும் எளிதாகவும் மிக எளிதில் புரிந்து கொள்ள கூடியதாகவும், எழுதப்பட்டிருக்க வேண்டும். படிக்க தெரியாத நோயாளிகள் தெளிவான அறிவு பெறும்படியாகவும், பயிற்சியின் போது எப்படி ஒத்துழைக்க வேண்டும்.

1. படுக்கையில் படுக்கவும் உடலை தளர்விடவும் மெல்ல சுதந்திரமாக

2. வசதியாக அமைதியாக இருக்கவும்

3. கண்களை மூடிக் கொள்ளவும்

4. மற்ற நினைவுகளை ஒதுக்கவும் அசையாமல் அமைதியாக இருக்கவும்

5. அதிகப்படியான உடலசைவுகளை தவிர்க்க வேண்டும்.

6. பயிற்சியின் ஒரு பதியாக தசையை சுற்றி அழுத்தி பிடித்து மேலும் 5 நொடி தாமதித்து தளர்விடவும் (1001,1002,1003 அமைதியாக சொல்லவும்).

7.தளர்வடையும் பயிற்சி சுற்றின் போது தசைகளை விரைவாக தளர்த்தி மேலும் மனதை முழுவதுமாக தளர்ச்சி எப்படி தசை தளர்கிறது என்பதை உணர வேண்டும்.

8. மற்ற எல்லா தசைகளையும் தளர்வடையும் செய்ய வேண்டும்.

9. குறிப்பிட்ட கூட்ட தசைகளை பயிற்சி செய்யும் போது தலையிலிருந்து கால்வரை பயிற்சி செய்யும் போது மாற்றங்கள் அதாவது அழுத்தம் லேசான மற்றும் இதமான உணர்வுகள் ஏற்படுகின்றதா என்பதை கவனிக்க வேண்டும்.

10.தளர்வாக மூன்று ஆழ்ந்த மூச்சுக்களை எடுத்து மூக்கின் வழியாக உள்ளிழுத்து வாயின் வழியாக வெளியேற்ற வேண்டும். ஒவ்வொரு முறையும் 30 நொடிகள் தளர்வாக 1 வினாடிக்கு ஒரு முறை செய்ய வேண்டும்.

11. இப்போழுது உங்கள் உடல் முழுவதும் தளர்வாக மெல்ல சுதந்திரமாக

12. இப்போழுது உங்கள் பயிற்சியை தொடங்கலாம்.

### பயிற்சிக்குப்பின்

#### 1. முகத்தசைகள்

- ❖ கண்களை இருக்கி மூடி, நெற்றியை சுருக்கி, முகத்தசைகளை சுருக்கவும்.
- ❖ பற்களை கடிக்கவும்
- ❖ உதடுகளை பரிஸ் போல செய்யவும்
- ❖ நாவை அண்ணாக்கின் மேல் தூக்கவும்
- ❖ முழுவதுமாக தளர்த்தவும்

#### 2.கழுத்து மற்றும் தோள

- ❖ முதலில் பின்புறமாக வளைத்து, பின்பு முன்புறமாக வளைத்து தாடையை தொடும்படி செய்யவும்.
- ❖ தோளை இருக்கி பிடித்து மேலும் கீழுமாக சுருக்கவும்
- ❖ முழுவதுமாக தளரவிடவும்

#### 3. மார்பு தசை

- ❖ நீள மூச்சு எடுத்து இருக்கி பிடிக்கவும் 5-7 நொடிகள் பிடிக்கவும்.

#### 4. கைகள்

- ❖ இரண்டு கைகளையும் தனித்தனியாக இறுக்கி பிடிக்கவும்
- ❖ உள்ளங்கைகளை இறுக்கவும்
- ❖ முழுவதுமாக தளரச்செய்யவும்

#### 5. முழங்கைகள்

- ❖ உள்ளங்கையை இறுக்கி பிடித்து முழங்கைவரை மடக்கவும்
- ❖ மறுகையிலும் இதேபோல் செய்யவும்

#### 6. கையில் மேற்பகுதி

- ❖ வலது கையை நீட்டி பின்னர் தளரவும்
- ❖ இடது கையிலும் அதேபோல் செய்யவும்
- ❖ முழுவதுமாக தளரவும்



## சுய ஒப்புதல் படிவம்

ஆராய்ச்சி தலைப்பு :

மனப் பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்திவதினால் ஏற்படும் மனப் பதட்டம் மாற்றத்தை கண்டறிவதற்கான ஆய்வு

ஆய்வாளர் பெயர் : வி. பெனாசிர்

பங்கேற்பாளர் பெயர் :

தேதி :

வயது/பால் :

ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சுயநினைவுடனும் சம்மதிக்கிறேன்.

ஆய்வாளர் மேற்கொள்ள போகும் பரிசோதனைகளை மிக தெளிவாக விளக்கிக்கூறினார்.

எனக்கு விருப்பமில்லாத பட்சத்தில் ஆராய்ச்சியிலிருந்து எந்நேரமும் விலகலாம் என்பதையும் ஆய்வாளர் மூலம் அறிந்து கொண்டேன்.

இந்த ஆராய்ச்சி ஒப்புதல் கடிதத்தில் உள்ள விவரங்களை நன்கு புரிந்துகொண்டேன். எனது உரிமைகள் மற்றும் கடமைகள் ஆராய்ச்சியாளர் மூலம் விளக்கப்பட்டது.

நான் ஆராய்ச்சியாளருடன் ஒத்துழைக்க சம்மதிக்கிறேன். எனக்கு ஏதேனும் உடல்நலகுறைவு ஏற்பட்டால் ஆராய்ச்சியாளரிடம் தெரிவிப்பேன்.

நான் வேறு எந்த ஆராய்ச்சிலும் தற்சமயம் இடம்பெறவில்லை என்பதை தெரிவித்துக்கொள்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிட சம்மதிக்கிறேன். அப்படி வெளியிடும்போது என் அடையாளம் வெளிவராது என்பதை அறிவேன்.

எனக்கு இந்த ஒப்புதல் கடிதத்தின் நகல் கொடுக்கப்பட்டது.

ஆய்வாளர் கையொப்பம்  
கையொப்பம்

பங்கேற்பாளர்

தேதி

தேதி

ஆராய்ச்சி தகவல் தாள்

**ஆராய்ச்சி தலைப்பு :**

**மனப் பதட்டம்** உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்திவதினால் ஏற்படும் **மனப் பதட்ட** மாற்றத்தை கண்டறிவதற்கான ஆய்வு

ஆய்வாளர் பெயர் : வி. பெனாசிர்

பங்கேற்பாளர் பெயர் :

தேதி :

வயது/பால்

- ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சம்மதிக்கலாம். இதில் பங்கேற்பதன் நோக்கம். இந்த ஆராய்ச்சியில் தகவல்களை தெரிந்து கொள்வதற்காகவும். அதனை பயன்படுத்துவதற்காக மட்டும் தான்.

இந்த ஆராய்ச்சியின் நோக்கம், **மனப் பதட்டம்** உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்திவதினால் ஏற்படும் **மனப் பதட்ட** மாற்றத்தை கண்டறிவதற்கான ஆய்வு

**ஆராய்ச்சி மேற்கொள்ளும் முறை**

இந்த ஆராய்ச்சியில் **மனப் பதட்டம்** உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை கற்றுதருவதற்கு முன்பு மற்றும் பின்பு பயன்படுத்திவதினால் அவர்களுடைய **மனப் பதட்டம்** குறைவதை அறியலாம் .

**இதனால் ஆய்வாளருக்கான பயன்**

இந்த ஆய்விற்குப்பின் **மனப் பதட்டம்** உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை கற்றுதந்ததன் தாக்கத்தினை அறியலாம்.

**இதனால் பங்கேற்பாளருக்கான பயன்**

இந்த ஆய்வு இருக்கும் **மனப் பதட்டம்** உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்திவதினால் அவர்களுடைய **மனப் பதட்டம்** குறைகிறது.

ஆராய்ச்சியில் பங்கேற்கவில்லை என்றாலும், உங்களின் சராசரி வாழ்கைமுறையில் எந்த வித மாற்றமும் ஏற்படாது என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் பங்கேற்க விருப்பம் இல்லை என்றால் உங்களின் முழுமனதுடன்  
நீங்கள் இந்த ஆராய்ச்சியில் இருந்து விலகி கொள்ளலாம் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் உங்களின் தகவல்களை பாதுகாப்பாக  
வைத்துக்கொள்கிறேன் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிடும் போது, உங்களை பற்றிய  
அடையாளங்கள் வெளிவராது என்பதை உறுதி கூறுகிறேன்.

ஆய்வாளர் கையொப்பம்  
கையொப்பம்

பங்கேற்பாளர்

தேதி

தேதி

## **INFORMED CONSENT**

**Investigator :V.BENAZIR**

**Name of Participant :**

**Age/sex :**

**Date :**

**Name of the institution: Institute of mental health at Chennai.**

**Title :“A study to assess the effectiveness of Jacobson progressive muscle relaxation technique among Anxiety disorder clients attending outpatient department, Institute of mental health at Chennai.**

**Documentation of the informed consent:** (legal representative can sign if the participant is minor or competent).

- I \_\_\_\_\_ have read/it has been read for me, the information in this form. I was free to ask any questions and they have been answered. I am over 60 years of age and exercising my free power of choice, hereby give my consent to be included as a participant in the study.
- I have read and understood this consent form and the information provided to me.
- I have had the consent document explained in detail to me.
- I have been explained about the nature of my study.
- My rights and responsibilities have been explained to me by the investigator.
- I agree to cooperate with the investigator
- I have not participated in any research study at any time.

- I am aware of the fact that I can opt out of the study at any time without having to give any reason
- I hereby give permission to the investigators to release the information obtained from me as a result of participation in this study to the regulatory authorities, government agencies and Institutional ethics committee. I understand that they are publicly presented.
- My identity will be kept confidential if my data are publicly presented.
- I am aware that I have any question during this study; I should contact the concerned investigator.

Signature of Investigator  
Participants

Signature of

Date

Date

## **INFORMATION TO PARTICIPANTS**

**Title** : “A study to assess the effectiveness of Jacobson progressive muscle relaxation technique among Anxiety disorder client attending outpatient department, Institute of mental health at Chennai.

**Name of the Participant:**

**Date** :

**Age/sex** :

**Investigator** : V.BENAZIR

**Name of the institution ; INSTITUTE OF MENTAL HEALTH at Chennai.**

**Enrolment No** :

You are invited to take part in this study. The information in this document is meant to help you decide whether or not to take part. Please feel free to ask if you have any queries or concerns.

You are being asked to Cooperate in this study being conducted in selected Institute of mental health hospital at Chennai.

### **What is the Purpose of the Research (explain briefly)**

This research is conducted to evaluate the effectiveness of s among anxiety disorder clients. Attending outpatient department. Institute of mental health hospital at Chennai. We have obtained permission from the Institutional Ethics Committee.

### **Study Procedures**

- Study will be conducted after approval of ethics committee

- A written formal permission will be obtained from authorities of Institute of Mental Health at Chennai to conduct study.
- The purpose of study will be explained to the participants.
- The investigator will obtain informed consent.
- The investigator will assess the anxiety level of each participant before the procedure using a Anxiety scale.
- The investigator will undergo training for s in training centre.
- will be taught by the investigator daily.
- The procedure of will be explained to them with the help of pictures of each step.
- Following that the level of anxiety will be assessed after 7 days.

#### **Possible benefits to other people**

The result of the research may provide benefits to the anxiety disorder clients and also empathetic care to them by investigator.

#### **Confidentiality of the information obtained from you**

You have the right to confidentiality regarding the privacy of your personal details. The information from this study, if published in scientific journals or presented at scientific meetings, will not reveal your identity.

#### **How will your decision not to participate in the study affect you?**

Your decisions not to participate in this research study will not affect your activity of daily living, medical care or your relationship with investigator or the institution.

#### **Can you decide to stop participating in the study once you start?**

The participation in this research is purely voluntary and you have the right to withdraw from this study at any time during course of the study without giving any reasons.

Your Privacy in the research will be maintained throughout study. In the event of any publications or presentation resulting from the research, no personally identifiable information will be shared.

Signature of Investigator  
Participants

Signature of

Date

Date



## **Hamilton Anxiety Rating Scale (HAM-A)**

Below is a list of phrases that describe certain feeling that people have. Rate the patients by finding the answer which best describes the extent to which he/she has these conditions. Select one of the five responses for each of the fourteen questions.

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe.

### **1 Anxious mood**

Worries, anticipation of the worst, fearful anticipation, irritability

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe.

### **2 Tension**

Feelings of tension, fatigability, startle response, moved to tears easily, trembling, feelings of restlessness, inability to relax.

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe.

### **3 Fears**

Of dark, of strangers, of being left alone, of animals, of traffic, of crowds.

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe.

### **4 Insomnia**

Difficulty in falling asleep, broken sleep, unsatisfying sleep and fatigue on waking, dreams, nightmares, night terrors.

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe.

### **5 Intellectual**

Difficulty in concentration, poor memory

0 = Not present, 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very severe.

## **6 Depressed Mood**

Loss of interest, lack of pleasure in hobbies, depression, early waking, diurnal swing.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **7 Somatic (muscular)**

Pains and aches, twitching, stiffness, myoclonic jerks, grinding of teeth, unsteady voice, increased muscular tone.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **8 Somatic (sensory)**

Tinnitus, blurring of vision, hot and cold flushes, feelings of weakness, pricking sensation.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **9 Cardiovascular symptoms**

Tachycardia, palpitations, pain in chest, throbbing of vessels, fainting feelings, missing beat.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **10 Respiratory symptoms**

Pressure or constriction in chest, choking feelings, sighing, dyspnea.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **11 Gastrointestinal symptoms**

Difficulty in swallowing, wind abdominal pain, burning sensations, abdominal fullness, nausea, vomiting, borborygmi, looseness of bowels, loss of weight, constipation

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very

severe.

## **12 Genitourinary symptoms**

Frequency of micturition, urgency of micturition, amenorrhea, menorrhagia, development of frigidity, premature ejaculation, loss of libido, impotence.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **13 Autonomic symptoms**

Dry mouth, flushing, pallor, tendency to sweat, giddiness, tension headache, raising of hair.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## **14 Behavior at interview**

Fidgeting, restlessness or pacing, tremor of hands, furrowed brow, strained face, sighing or rapid respiration, facial pallor, swallowing, etc.

0 = Not present,      1 = Mild,      2 = Moderate,      3 = Severe,      4 = Very severe.

## ஆராய்ச்சி தகவல் தாள்

### ஆராய்ச்சி தலைப்பு

மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்துவதினால் ஏற்படும் மனப்பதட்ட மாற்றத்தை கண்டறிவதற்கான ஆய்வு.

ஆய்வாளர் பெயர் : வி. பெனாசிர்

பங்கேற்பாளர் பெயர் :

தேதி :

வயது பால்

ஆய்வாளர் மேற்கொள்ளும் ஆராய்ச்சியில் பங்கேற்க யாருடைய கட்டாயமுமின்றி முழுமனதுடனும் சம்மதிக்கலாம். இதில் பங்கேற்பதன் நோக்கம், இந்த ஆராய்ச்சியில் தகவல்களை தெரிந்து கொள்வதற்காகவும், அதனை பயன்படுத்துவதற்காக மட்டும் தான்.

இந்த ஆராய்ச்சியின் நோக்கம், மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்துவதினால் ஏற்படும் மனப்பதட்ட மாற்றத்தை கண்டறிவதற்கான ஆய்வு.

### ஆராய்ச்சி மேற்கொள்ளும் முறை

இந்த ஆராய்ச்சியில் மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை கற்று தருவதற்கு முன்பு மற்றும் பின்பு பயன்படுத்துவதினால் அவர்களுடைய மனப்பதட்டம் குறைவதை அறியலாம்.

**இதனால் ஆய்வாளருக்கான பயன்**

இந்த ஆய்விற்குப்பின் மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை கற்றுதந்ததன் தாக்கத்தினை அறியலாம்.

**இதனால் பங்கேற்பாளருக்கான பயன்**

இந்த ஆய்வு இருக்கும் மனப்பதட்டம் உள்ள நோயாளிகளிடையே தசை தளர்வு உத்தியை பயன்படுத்துவதினால் அவர்களுடைய மனப்பதட்டம் குறைகிறது.

ஆராய்ச்சியில் பங்கேற்கவில்லை என்றாலும், உங்களின் சராசரி வாழ்க்கை முறையில் எந்தவித மாற்றமும் ஏற்படாது என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் பங்கேற்க விருப்பம் இல்லை என்றால் உங்களின் முழுமனதுடன் நீங்கள் இந்த ஆராய்ச்சியில் இருந்து விலகி கொள்ளலாம் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியில் உங்களின் தகவல்களை பாதுகாப்பாக வைத்துக்கொள்கிறேன் என்பதை தெரிவிக்கிறேன்.

இந்த ஆராய்ச்சியின் தகவல்களை வெளியிடும்போது, உங்களை பற்றிய அடையாளங்கள் வெளிவராது என்பதை உறுதி கூறுகிறேன்.

ஆய்வாளர் கையொப்பம்.  
கையொப்பம்.

பங்கேற்பாளர்

தேதி

தேதி

## தன்விவரக்குறிப்ப

மாதிரி எண்.

1. வயது

அ. 22-30

ஆ. 30-40

இ. 40-50

ஈ. 50க்கு மேல்

2. இனம்

அ. ஆண்

ஆ. பெண்

3. திருமணம்

அ. திருமணமானவர்

ஆ. திருமணம் ஆகாதவர்

இ. துணையை இழந்தவர்

ஈ. பிரிந்து வாழ்பவர்.

4. கல்வித்தகுதி

அ.1 முதல் 5-ம் வகுப்பு வரை

ஆ.6 முதல் 10-ம் வகுப்பு வரை

இ. 11 முதல் 12ம் வகுப்பு, பட்டயபடிப்பு

ஈ. பட்டப்படிப்பு அதற்கு மேல்

5. மதம்

அ. இந்து

ஆ. கிறிஸ்துவம்

இ. இஸ்லாமியம்

ஈ. மற்றவர்

6. வேலை

அ. கூலித்தொழிலாளி

ஆ. சுயதொழிலாளி / வியாபாரம்

இ. தனியார் / அரசு பணி

ஈ. குடும்ப நிர்வாக / வேலையில்லாமை / சார்ந்து வாழ்தல்

7. மாத வருமானம் ரூபாயில்

அ. 6000

ஆ. 6001-10000

இ. 10001-15000

ஈ. 15001-20000

8. சமூக வசிப்பிடம்

அ. கிராமம்

ஆ. சிறுநகரம்

இ. நகரம்

9. குடும்பத்தில் யாருக்காவது மனப்பதட்ட நோய் உள்ளதா?

அ. ஆம்

ஆ. இல்லை

10. மனப்பதட்ட நோய் உங்களுக்கு எப்பொழுது கண்டறியப்பட்டது?

அ. பிறந்தது முதல் 1 வருடம்

ஆ. 1 முதல் 3 வயது

இ. 3 முதல் 6 வயது

ஈ. 6 வயதிற்கு மேல்

11. வைத்தியமுறைப்பிரிவு

அ. உணவு மற்றும் மாத்திரை

ஆ. உணவு, உடற்பயிற்சி மற்றும் மாத்திரை

இ. உணவு

12. இதற்கு முன்பு உங்களுக்கு மனப்பதட்ட நோய் வந்துள்ளதா?

அ. ஆம்

ஆ. இல்லை

13. உடற்தளர்ச்சி பயிற்சி பற்றி உங்களுக்கு முன் அனுபவம் உண்டா?

அ. ஆம்

ஆ. இல்லை

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## மில்டன் பதற்றநிலை அளவுகோல

### 1. உங்களுக்கு மனது கவலையாக இருக்கிறதா

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

### 2. உங்களுக்கு பதற்றமாக இருக்கிறதா?

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

### 3. உங்களுக்கு இருட்டைக் கண்டாலோ , தனிமையாக இருக்கும் போதோ புதியவர்களை கண்டாலோ கட்டத்தைக் கண்டாலோ பயமா இருக்கிறதா

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

### 4. உங்களுக்கு தூக்கம்மின்மை இரவில் அதிகமாக கனவு வருதல் திருப்பதியில்லாத தூக்கம் போன்ற பிரச்சனைகள் இருக்கிறதா

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

5. உங்களுக்கு கவனக்குறைவு ஞாபக மறதி போன்ற தொந்தரவுகள் இருக்கிறதா?

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

6. உங்களுக்கு மன அழுத்தம் எதிலும் ஆர்வமின்மை அதிகாலையில் தூக்கமின்றி எழும்புதல் போன்ற பிரச்சனைகள்

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

7. உங்களுக்கு உடல்வலி தசைப்பிடிப்பு தசை இறுகுதல் குரல் பிறகுதல், பல்கடித்தல் போன்ற பிரச்சனைகள் இருக்கிறதா?

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

8. உங்களுக்கு பார்வை கோளாறு உடல் அதிக சுடாதல் அல்லது குளிர்ந்தல் உடல் சோர்வடைதல், போன்ற பிரச்சனைகள் இருக்கிறதா?

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

9. உங்களுக்கு இதயத் துடிப்பு கோளாறு மிகுதியான நெஞ்சு துடிப்பு, நெஞ்சு வலி, மயக்கம், இதயத்துடிப்பு இல்லாதது போன்ற பிரச்சனைகள் இருக்கிறதா?

அ. இல்லை	0	ஆ. சிறிதளவு	1
இ. கனிசமான அளவு	2	ஈ. அதிகமான	3
உ. மிக அதிகமாக	4		

10. உங்களுக்கு நெஞ்சு அழுத்தம் முச்சு விடுதலில் சிரமம் போன்ற பிரச்சனைகள் இருக்கிறதா?

- |                 |   |             |   |
|-----------------|---|-------------|---|
| அ. இல்லை        | 0 | ஆ. சிறிதளவு | 1 |
| இ. கனிசமான அளவு | 2 | ஈ. அதிகமான  | 3 |
| உ. மிக அதிகமாக  | 4 |             |   |

11. உங்களுக்கு வயிற்றுவலி வாந்தி வாந்தி வரும் உணர்வு எடை குறைதல் மலச்சிக்கல் போன்ற பிரச்சனைகள் இருக்கிறதா?

- |                 |   |             |   |
|-----------------|---|-------------|---|
| அ. இல்லை        | 0 | ஆ. சிறிதளவு | 1 |
| இ. கனிசமான அளவு | 2 | ஈ. அதிகமான  | 3 |
| உ. மிக அதிகமாக  | 4 |             |   |

12. உங்களுக்கு சிறுநீர் கழிப்பதில் பிரச்சனை , வெள்ளைப்படுதல், மூாத விலக்கில் பிரச்சனை உள்ளதா?

- |                 |   |             |   |
|-----------------|---|-------------|---|
| அ. இல்லை        | 0 | ஆ. சிறிதளவு | 1 |
| இ. கனிசமான அளவு | 2 | ஈ. அதிகமான  | 3 |
| உ. மிக அதிகமாக  | 4 |             |   |

13. உங்களுக்கு நாக்கு வறண்டு போத் வியர்த்தல் தலைச்சுற்றல் தலைவலி போன்ற பிரச்சனைகள் இருக்கிறதா?

- |                 |   |             |   |
|-----------------|---|-------------|---|
| அ. இல்லை        | 0 | ஆ. சிறிதளவு | 1 |
| இ. கனிசமான அளவு | 2 | ஈ. அதிகமான  | 3 |
| உ. மிக அதிகமாக  | 4 |             |   |

14. உங்களுக்கு நேர்முக தேர்வின் போது மன பதட்டம், கை நடுக்கம், அதிகமான முச்சி வாங்குதல், எச்சில் முழுங்குவது .

- |                 |   |             |   |
|-----------------|---|-------------|---|
| அ. இல்லை        | 0 | ஆ. சிறிதளவு | 1 |
| இ. கனிசமான அளவு | 2 | ஈ. அதிகமான  | 3 |
| உ. மிக அதிகமாக  | 4 |             |   |



Samples	Pretest-Questionnaires																																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
1	1	0	0	0	0	0	0	0	1	1	1	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	0	1				
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0				
3	0	1	1	1	1	1	1	0	0	1	0	1	0	1	0	1	1	1	0	1	0	1	1	0	0	1	1	0	1	0				
4	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	1	1	1	0	0	1	0	1	1	1	1	1	1	0	1				
5	1	1	1	1	1	1	1	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1			
6	0	1	1	1	0	0	1	0	0	1	0	1	1	1	1	1	0	0	0	1	0	1	1	1	1	1	1	1	1	0	1			
7	1	0	1	0	0	0	0	0	0	0	1	1	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0			
8	0	0	1	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	1	1	0			
9	0	1	1	1	1	1	1	0	0	0	1	1	1	1	0	1	0	1	0	0	0	1	0	0	0	0	1	0	1	1	1			
10	1	1	1	1	0	1	0	1	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	0	0	0	1	0	0	0	0			
11	0	1	0	1	0	1	0	0	0	1	0	0	0	1	0	0	1	1	1	0	1	1	1	0	0	1	0	0	0	0	0			
12	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	1	0	0	1	1	1	1	1	0			
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Samples	Posttest Questionnaires																													
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